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# Amazon Elastic Compute Cloud

## CLI Reference

**API Version 2015-10-01**



## **Amazon Elastic Compute Cloud: CLI Reference**

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# Welcome

---

This is the *Amazon EC2 Command Line Reference*. It provides descriptions, syntax, and usage examples for each of the commands for Amazon EC2 and Amazon Virtual Private Cloud (Amazon VPC). The commands wrap the Amazon EC2 API actions.

## Important

The Amazon EC2 CLI predates alternative AWS command line tools, and can only be used for Amazon EC2 and Amazon VPC resources. We recommend that you use the alternative AWS tools instead: [Alternative AWS Tools](#) (p. 1).

How Do I?	Relevant Topics
Get set up to use the CLI tools	<a href="#">Setting Up the CLI Tools (Linux and Mac OS X)</a> (p. 3) <a href="#">Setting Up the CLI Tools (Windows)</a> (p. 10)
Get the alphabetical list of commands	<a href="#">Commands (CLI Tools)</a> (p. 30)
Get the list of the common options for the commands	<a href="#">Common Options for CLI Tools</a> (p. 732)
Get descriptions of the error codes	<a href="#">Error Codes</a> (in the <i>Amazon EC2 API Reference</i> )
Get the list of regions and endpoints	<a href="#">Regions and Endpoints</a> (in the <i>AWS General Reference</i> )

## Note

If you're looking for information about setting up the AMI tools, see [Setting Up the AMI Tools](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Alternative AWS Tools

You can also use one of these AWS command line interfaces to manage your Amazon EC2 resources:

### AWS Command Line Interface (AWS CLI)

Provides commands for a broad set of AWS products, and is supported on Windows, Mac, and Linux/Unix. To get started, see the [AWS Command Line Interface User Guide](#). For more information about the AWS CLI commands for Amazon EC2, see [ec2](#) in the *AWS Command Line Interface Reference*.

**AWS Tools for Windows PowerShell**

Provides commands for a broad set of AWS products for those who script in the PowerShell environment. To get started, see the [AWS Tools for Windows PowerShell User Guide](#).

# Setting Up the Amazon EC2 CLI

---

Before you can start using the Amazon EC2 command line interface (CLI) tools, you must download them, configure them, and ensure that any required software is installed.

**Note**

For information about setting up the AMI tools, see [Setting Up the AMI Tools](#) in the *Amazon EC2 User Guide for Linux Instances*.

## CLI Tools

You can use the CLI tools to create and manage your resources for Amazon EC2, Amazon EBS, and Amazon VPC.

**Note**

Alternatively, you can use the AWS Command Line Interface (AWS CLI). To get started with the AWS CLI, see the [AWS Command Line Interface User Guide](#). For more information about the AWS CLI commands for Amazon EC2, see [ec2](#) in the *AWS Command Line Interface Reference*.

To set up the CLI tools, see the following documentation:

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

## Setting Up the Amazon EC2 Command Line Interface Tools on Linux/Unix and Mac OS X

The Amazon EC2 command line interface tools (also called the *EC2 CLI tools*) wrap the Amazon EC2 API actions. These tools are written in Java and include shell scripts for both Windows and Linux, OS X, or Unix.

**Note**

Alternatively, you can use the AWS Command Line Interface (AWS CLI), which provides commands for a broad set of AWS products, including Amazon EC2. To get started with the AWS CLI, see the [AWS Command Line Interface User Guide](#). For more information about the AWS CLI commands for Amazon EC2, see [ec2](#) in the *AWS Command Line Interface Reference*.

Before you can use the Amazon EC2 CLI tools on your computer or your instance, you must install the tools and set the environment variables used by the tools. Use the set of directions for your operating system:

- [Setting Up the Amazon EC2 CLI Tools on Amazon Linux \(p. 4\)](#)
- [Setting Up the Amazon EC2 CLI Tools on RHEL, Ubuntu, or Mac OS X \(p. 5\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## Setting Up the Amazon EC2 CLI Tools on Amazon Linux

Instances that you launch using a non-minimal version of the Amazon Linux AMI already include the Amazon EC2 CLI tools.

### Note

The minimal versions of the Amazon Linux AMI (`amzn-ami-minimal-*`) do not contain the Amazon EC2 CLI tools; however, they are available in the default **yum** repositories, and you can install them with the following command:

```
[ec2-user ~]$ sudo yum install -y aws-apitools-ec2
```

Each time you use the Amazon EC2 CLI tools on your instance, you must provide your identity. The Amazon EC2 CLI tools use your access keys to identify you, and to sign requests on your behalf. There are two types of access keys: access key IDs and secret access keys. You should have stored your access keys in a safe place when you created them. Although you can retrieve your access key ID from the [Your Security Credentials](#) page, you can't retrieve your secret access key. Therefore, if you can't find your secret access key, you'll need to create new access keys before you can use the CLI tools.

### Note

The EC2 CLI tools use your access keys as well as a time stamp to sign your requests. Ensure that your computer's date and time are set correctly. If they are not, the date in the signature may not match the date of the request, and AWS rejects the request. For more information, see [Setting the Time for Your Linux Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

The easiest way to provide your access keys to the Amazon EC2 CLI is to set the `AWS_ACCESS_KEY` and `AWS_SECRET_KEY` environment variables. First, add the following lines to `~/.bashrc` and save the file.

```
export AWS_ACCESS_KEY=your-aws-access-key-id
export AWS_SECRET_KEY=your-aws-secret-key
```

After you've updated `~/.bashrc`, run the following command:

```
source ~/.bashrc
```

To verify that your CLI tools are set up correctly, run the following command:

```
ec2-describe-regions
```

If you get an error that required option is missing, check the following settings, fix any errors, and try the command again:

- Check `AWS_ACCESS_KEY` for missing option `-O`
- Check `AWS_SECRET_KEY` for missing option `-W`

The default region for the Amazon EC2 CLI tools is `us-east-1`. For information about configuring the Amazon EC2 CLI tools to use a different region, see [\(Optional\) Change the region \(p. 10\)](#).

## Setting Up the Amazon EC2 CLI Tools on RHEL, Ubuntu, or Mac OS X

You must complete the following setup tasks before you can use the Amazon EC2 CLI tools on your own computer.

### Topics

- [Download and Install the CLI Tools \(p. 5\)](#)
- [Install and configure Java \(p. 5\)](#)
- [Set the CLI Tools location \(p. 7\)](#)
- [Set your identity for the CLI Tools \(p. 8\)](#)
- [\(Optional\) Set a proxy server \(p. 8\)](#)
- [Verify the Tools Setup \(p. 9\)](#)
- [\(Optional\) Change the region \(p. 10\)](#)

## Download and Install the CLI Tools

### To download and install the CLI tools

1. The CLI tools are available as a `.zip` file on this site: [Amazon EC2 CLI Tools](#). You can also download them with the `wget` utility:

```
wget http://s3.amazonaws.com/ec2-downloads/ec2-api-tools.zip
```

Alternatively, you can download them using `cURL`:

```
curl -O http://s3.amazonaws.com/ec2-downloads/ec2-api-tools.zip
```

2. (Optional) Verify that the CLI tools package has not been altered or corrupted after publication. For more information about authenticating the download before unzipping the file, see [\(Optional\) Verify the Signature of the CLI Tools Download \(p. 16\)](#).
3. Unzip the files into a suitable installation directory, such as `/usr/local/ec2`.

```
sudo mkdir /usr/local/ec2
sudo unzip ec2-api-tools.zip -d /usr/local/ec2
```

Notice that the `.zip` file contains a folder `ec2-api-tools-x.x.x.x`, where `x.x.x.x` is the version number of the tools (for example, `ec2-api-tools-1.7.0.0`).

## Install and configure Java

The Amazon EC2 CLI tools require Java. While Amazon Linux already includes Java, you may need to install Java on your Red Hat or Ubuntu system. If you don't have Java 1.7 or later installed,



download and install Java. Find the right JDK package for your platform at [Java SE Development Kit 8 Downloads](#). Alternatively, you can install the latest JDK using your Red Hat or Ubuntu package manager. For more information, consult the documentation for your Linux distribution.

The Amazon EC2 CLI tools read the `JAVA_HOME` environment variable to locate the Java runtime. This environment variable should specify the full path of the directory that contains a subdirectory named `bin` that contains the Java executable you installed (`java.exe`).

### To set the `JAVA_HOME` environment variable on Linux/Unix and Mac OS X

1. Verify that you have Java installed with the following command:

```
$ which java
```

If Java is present, you should see something like the following output:

```
/usr/bin/java
```

2. Find the Java home directory on your system. The `which java` command executed earlier returns Java's location in the `$PATH` environment variable, but in most cases this is a symbolic link. The `JAVA_HOME` environment variable requires the true path to the binary.
  - a. (Linux only) For Linux systems, you can recursively run the `file` command on the `which java` output until you find the binary. For example:

```
file $(which java)
/usr/bin/java: symbolic link to `/etc/alternatives/java'
```

The `/usr/bin/java` location is actually a link to `/etc/alternatives/java`, so you need to run the `file` command on that location to see whether that is the real binary.

```
file /etc/alternatives/java
/etc/alternatives/java: symbolic link to `/usr/lib/jvm/java-7-openjdk-
amd64/jre/bin/java'
```

This returns a new location, which is the actual binary. Verify this by running the `file` command on this location:

```
file /usr/lib/jvm/java-7-openjdk-amd64/jre/bin/java
/usr/lib/jvm/java-7-openjdk-amd64/jre/bin/java: ELF 64-bit LSB
executable...
```

This location is the actual binary (notice that it is listed as an executable). The Java home directory is where `bin/java` lives; in this example, the Java home directory is `/usr/lib/jvm/java-7-openjdk-amd64/jre`.

- b. (Mac OS X only) For Mac OS X systems, the `/usr/libexec/java_home` command returns a path suitable for setting the `JAVA_HOME` variable.

```
/usr/libexec/java_home
/System/Library/Java/JavaVirtualMachines/1.7.0_55.jdk/Contents/Home
```

3. Set `JAVA_HOME` to the full path of the Java home directory.
  - a. (Linux only) For the Linux example above, set the `JAVA_HOME` variable to the directory where `bin/java` was located in [Step 2.a \(p. 6\)](#).

```
export JAVA_HOME="/usr/lib/jvm/java-7-openjdk-amd64/jre"
```

- b. (Mac OS X only) For the Mac OS X example above, set the `JAVA_HOME` variable to `$(/usr/libexec/java_home)`. The following command sets this variable to the output of the `java_home` command; the benefit of setting the variable this way is that it updates to the correct value if you change the location of your Java installation later.

```
$ export JAVA_HOME=$(/usr/libexec/java_home)
```

4. You can verify your `JAVA_HOME` setting using this command:

```
$ $JAVA_HOME/bin/java -version
```

If you have set the environment variable correctly, the output looks something like the following:

```
java version "1.7.0_55"  
OpenJDK Runtime Environment (IcedTea6 2.4.7) (7u55-2.4.7-1ubuntu0.12.04.2)  
OpenJDK 64-Bit Server VM (build 24.51-b03, mixed mode)
```

5. Add this environment variable definition to your shell start up scripts so that it is set every time you log in or spawn a new shell. The name of this startup file differs across platforms. In Mac OS X, this file is commonly called `~/.bash_profile` and in RHEL and Ubuntu, it is commonly called `~/.bashrc`. If you're unsure, consult the help documentation for your platform.

If the file does not exist, you can create it. Use your favorite text editor to create a new file with that name. Then add the `JAVA_HOME` variable definition you set in [Step 3 \(p. 6\)](#) and save.

6. Verify that the variable is set properly for new shells by opening a new terminal window and testing that the variable is set with the following command:

```
$JAVA_HOME/bin/java -version
```

#### Note

If the `java -version` command does not correctly display the version, try logging out, logging back in again, and then retrying the command.

## Set the CLI Tools location

The Amazon EC2 CLI tools read the `EC2_HOME` environment variable to locate supporting libraries. Before using these tools, set `EC2_HOME` to the directory path where you unzipped them. This directory is named `ec2-api-tools-w.x.y.z` (where `w`, `x`, `y`, and `z` are components of the version number). It contains subdirectories named `bin` and `lib`.

In addition, to make things a little easier, you can add the `bin` directory for the CLI tools to your system path. Most of the examples in the *Amazon EC2 User Guide for Linux Instances* assume that you have done so.

You can set the `EC2_HOME` and `PATH` environment variables as follows. Add them to your shell start up scripts so that they're set every time you log in or spawn a new shell.

### To set the `EC2_HOME` and `PATH` environment variables on Linux/Unix

1. Use this command to set the `EC2_HOME` environment variable. For example, if you unzipped the tools into the `/usr/local/ec2` directory created earlier, execute the following command, substituting the correct version number of the tools:

```
export EC2_HOME=/usr/local/ec2/ec2-api-tools-1.7.0.0
```

#### Note

If you are using Cygwin, `EC2_HOME` must use Linux/Unix paths (for example, `/usr/bin` instead of `C:\usr\bin`). Additionally, the value of `EC2_HOME` cannot contain any spaces, even if the value is quoted or the spaces are escaped.

2. Use this command to set the `PATH` variable:

```
export PATH=$PATH:$EC2_HOME/bin
```

## Set your identity for the CLI Tools

Your access keys identify you to the Amazon EC2 CLI tools. There are two types of access keys: access key IDs (for example, `AKIAIOSFODNN7EXAMPLE`) and secret access keys (for example, `wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY`). You should have stored your access keys in a safe place when you received them. Although you can retrieve your access key ID from the [Your Security Credentials](#) page on the IAM console (if you are an IAM user), you can't retrieve your secret access key. Therefore, if you can't find your secret access key, you'll need to create or request new access keys before you can use the CLI tools.

Every time you issue a command, you must specify your access keys using the `--aws-access-key` and `--aws-secret-key` (or `-o` and `-w`) options. Alternatively, you might find it easier to store your access keys using the following environment variables:

- `AWS_ACCESS_KEY`
- `AWS_SECRET_KEY`

If these environment variables are set properly, their values serve as the default values for these required options, so you can omit them from the commands. You can add them to your shell startup scripts so that they're set every time you log in or spawn a new shell.

You can set these environment variables as follows:

```
export AWS_ACCESS_KEY=your-aws-access-key-id  
export AWS_SECRET_KEY=your-aws-secret-key
```

## (Optional) Set a proxy server

If the computer on which you have installed the Amazon EC2 CLI tools requires the use of a proxy server, set the `EC2_JVM_ARGS` environment variable.

The following table contains the proxy configuration properties that can be set for the `EC2_JVM_ARGS` variable. The properties that are required depend on the type of proxy server being used. For example, the `http.proxyDomain` and `http.proxyWorkstation` properties are only used with a Windows NTLM proxy.

Property	Description
<code>https.proxyHost</code>	HTTPS proxy host. Use when <code>EC2_URL</code> specifies an HTTPS host.
<code>https.proxyPort</code>	HTTPS proxy port. Use when <code>EC2_URL</code> specifies an HTTPS host.

Property	Description
<code>http.proxyHost</code>	HTTP proxy host. Use when <code>EC2_URL</code> specifies an HTTP host.
<code>http.proxyPort</code>	HTTP proxy port. Use when <code>EC2_URL</code> specifies an HTTP host.
<code>http.proxyDomain</code>	Proxy domain (HTTPS and HTTP)
<code>http.proxyWorkstation</code>	Proxy workstation (HTTPS and HTTP)
<code>http.proxyUser</code>	Proxy user name (HTTPS and HTTP)
<code>http.proxyPass</code>	Proxy password (HTTPS and HTTP)
<code>http.nonProxyHosts</code>	A list of hosts that should be reached directly, bypassing the proxy. Each item in the list is separated by ' '.

If you're using an instance that you launched from an Amazon Linux AMI, it may already have the `EC2_JVM_ARGS` environment variable set to a value. To check the value of the variable, use the following command:

```
echo $EC2_JVM_ARGS
```

If the command above returns no value, or if you are setting the variable for the first time on your computer, use the following command:

```
export EC2_JVM_ARGS="-Dhttps.proxyHost=my.proxy.com -Dhttps.proxyPort=8080"
```

Alternatively, to append your proxy information to an existing variable value, use the following command:

```
export EC2_JVM_ARGS="${EC2_JVM_ARGS} -Dhttps.proxyHost=my.proxy.com -Dhttps.proxyPort=8080"
```

## Verify the Tools Setup

Verify that your Amazon EC2 CLI tools are set up correctly. Run the following command to view your available regions:

```
$ ec2-describe-regions
```

If your environment variables are set correctly, the output lists regions and their corresponding service endpoints. The following tables lists some errors you might encounter, along with their mitigations.

Error	Mitigation
Required option <code>-o</code> is missing	Check the setting of <code>AWS_ACCESS_KEY</code> , fix any errors, and try the command again.
Required option <code>-w</code> is missing	Check the setting of <code>AWS_SECRET_KEY</code> , fix any errors, and try the command again.

Error	Mitigation
<code>Client.AuthFailure</code>	Check that you've entered your <code>AWS_ACCESS_KEY</code> and <code>AWS_SECRET_KEY</code> correctly, and check that the date and time are set correctly on your computer.
You are an IAM user and get a <code>Client.UnauthorizedOperation</code> error	You may not have permission to use the <code>ec2:DescribeRegions</code> action. Check your IAM policies, and then test the tools using an action that you have permission to use.

## (Optional) Change the region

By default, the Amazon EC2 CLI tools use the US East (Northern Virginia) region (`us-east-1`) with the `ec2.us-east-1.amazonaws.com` service endpoint URL. To access a different region with the CLI tools, you must set the `EC2_URL` environment variable to the proper service endpoint URL.

### To set the service endpoint URL

1. To list your available service endpoint URLs, call the `ec2-describe-regions` command.
2. Set the `EC2_URL` environment variable using the service endpoint URL returned from the `ec2-describe-regions` command as follows:

```
export EC2_URL=https://<service_endpoint>
```

If you've already launched an instance using the console and wish to work with the instance using the CLI, you must specify the endpoint URL for the instance's region. You can verify the region for the instance by checking the region selector in the console navigation bar.

For more information about the regions and endpoints for Amazon EC2, see [Regions and Endpoints](#) in the *Amazon Web Services General Reference*.

# Setting Up the Amazon EC2 Command Line Interface Tools on Windows

The Amazon EC2 command line interface tools (also called the *CLI tools*) wrap the Amazon EC2 API actions. These tools are written in Java and include shell scripts for both Windows and Linux/UNIX/Mac OSX.

### Note

Alternatively, you can use the AWS Command Line Interface (AWS CLI), which provides commands for a broad set of AWS products, including Amazon EC2. To get started with the AWS CLI, see the [AWS Command Line Interface User Guide](#). For more information about the AWS CLI commands for Amazon EC2, see `ec2` in the *AWS Command Line Interface Reference*.

Before you can use the Amazon EC2 CLI tools, you need to download them and configure them to use your AWS account. You can set up the tools on your own computer or on an Amazon EC2 instance.

Complete the following tasks to set up your Amazon EC2 environment:

1. [Download the CLI tools \(p. 11\)](#).
2. [Set the JAVA\\_HOME environment variable \(p. 11\)](#).
3. [Set the EC2\\_HOME environment variable \(p. 12\)](#).
4. [Set the AWS\\_ACCESS\\_KEY and AWS\\_SECRET\\_KEY environment variables \(p. 13\)](#).
5. (Optional) [Set the region \(p. 14\)](#).
6. (Optional) [Use a proxy \(p. 15\)](#).
7. [Download Remote Desktop \(p. 15\)](#).

#### Note

These instructions are written for a Windows 7 client. What you need to do to complete some tasks may vary if you're using a different version of Windows.

## Task 1: Download the Command Line Interface Tools (CLI Tools)

The CLI tools are available as a `.zip` file on the [Amazon EC2 CLI Tools](#) site. The tools are written in Java and include shell scripts for both Windows and Linux/UNIX/Mac OSX. The `.zip` file is self-contained; no installation is required. You can simply download the file and unzip it.

(Optional) You can verify that the CLI tools package has not been altered or corrupted after publication. For more information about authenticating the download before unzipping the file, see [\(Optional\) Verify the Signature of the CLI Tools Download \(p. 16\)](#).

## Task 2: Set the JAVA\_HOME Environment Variable

The Amazon EC2 CLI tools require Java. They read the `JAVA_HOME` environment variable to locate the Java runtime. This environment variable should specify the full path of the folder that contains a subfolder named `bin` that contains the Java executable you installed (`java.exe`).

### To set the `JAVA_HOME` environment variable on your computer or instance

1. If you don't have Java 1.7 or later installed, download and install Java. Either a JRE or JDK installation is acceptable. To view and download JREs for a range of platforms, see [Free Java Download](#).
2. Set `JAVA_HOME` to the full path of the Java home. For example, if your Java executable is in `C:\Program Files (x86)\Java\jre7\bin`, set `JAVA_HOME` to `C:\Program Files (x86)\Java\jre7`.

#### Important

These steps don't update the environment variables in your current Command Prompt windows. The Command Prompt windows that you open after you complete these steps will contain the updates. This is why it's necessary for you to open a new Command Prompt window to verify that your environment is set up properly.

- a. Click **Start**, right-click **Computer**, and then click **Properties**.
- b. Click **Advanced system settings**.
- c. Click **Environment Variables**.
- d. Under **User variables**, click **New**.
- e. In **Variable name**, type `JAVA_HOME`.
- f. In **Variable value**, type the path to your Java home (for example, `C:\Program Files (x86)\Java\jre7`).

### Important

Don't include the `bin` folder in `JAVA_HOME`. This is a common mistake, but the CLI tools won't work if you do this.

- g. Click **OK**.
3. Open a new Command Prompt window and verify your `JAVA_HOME` setting using this command:

```
C:\> "%JAVA_HOME%\bin\java -version
```

If you've set the environment variable correctly, the output looks something like this:

```
java version "1.7.0_45"  
Java(TM) SE Runtime Environment (build 1.7.0_45-b18)  
Java HotSpot(TM) Client VM (build 24.45-b08, mixed mode, sharing)
```

Otherwise, check the setting of `JAVA_HOME`, fix any errors, open a new Command Prompt window, and try the command again.

4. Add the `bin` folder that contains the Java executable to your path before other versions of Java.
  - a. Return to the **Environment Variables** window. In **User variables**, select **Path**, and then click **Edit**. (If this environment variable doesn't exist, create it.)
  - b. In **Variable values**, before any other versions of Java, add `;%JAVA_HOME%\bin`. Then click **OK**.
5. Open a new Command Prompt window and verify your update to the `Path` environment variable using this command.

```
C:\> java -version
```

You should see the same output as before. Otherwise, check the setting of `Path`, fix any errors, open a new Command Prompt window, and try the command again.

## Task 3: Set the EC2\_HOME Environment Variable and Update the Path Environment Variable

The Amazon EC2 CLI tools read the `EC2_HOME` environment variable to locate supporting libraries. You'll need to set this environment variable to the path where you unzipped the CLI tools. This folder is named `ec2-api-tools-w.x.y.z` (where `w`, `x`, `y`, and `z` are components of the version number). It contains subdirectories named `bin` and `lib`. You'll then need to update the `Path` environment variable to include the `bin` subdirectory.

### To set the EC2\_HOME variable and update the Path variable on your computer or instance

1. Set `EC2_HOME` to the path of the folder into which you unzipped the CLI tools.

#### Important

These steps don't update the environment variables in your current Command Prompt windows. The Command Prompt windows that you open after you complete these steps will contain the updates. This is why it's necessary for you to open a new Command Prompt window to verify that your environment is set up properly.

- a. Click **Start**, right-click **Computer**, and then click **Properties**.
- b. Click **Advanced system settings**.
- c. Click **Environment Variables**.

- d. Under **User variables**, click **New**.
  - e. In **Variable name**, type EC2\_HOME.
  - f. In **Variable value**, type the path to the folder where you installed the CLI tools. For example, C:\AWS\EC2\ec2-api-tools-1.7.0.0. Click **OK**.
2. Open a new Command Prompt window and verify your EC2\_HOME setting using this command.

```
C:\> dir "%EC2_HOME%"
```

If you've set the environment variable correctly, you'll see output for the folder listing. If you get a `File Not Found` error, check the setting of EC2\_HOME, fix any errors, open a new Command Prompt window, and try the command again.

3. Update the `Path` environment variable by adding the `bin` folder for the tools.
  - a. Return to the **Environment Variables** window. In **User variables**, select **Path**, and then click **Edit**.
  - b. In **Variable values**, add `;%EC2_HOME%\bin`, and then click **OK**.

## Task 4: Set the AWS\_ACCESS\_KEY and AWS\_SECRET\_KEY Environment Variables

The Amazon EC2 CLI tools use your access keys to identify you, and to sign requests on your behalf. There are two types of access keys: access key IDs (for example, AKIAIOSFODNN7EXAMPLE) and secret access keys (for example, wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY). You should have stored your access keys in a safe place when you received them. Although you can retrieve your access key ID from the [Your Security Credentials](#) page or the IAM console (if you are an IAM user), you can't retrieve your secret access key. Therefore, if you can't find your secret access key, you'll need to create or request new access keys before you can use the CLI tools.

### Note

The EC2 CLI tools use your access keys as well as a time stamp to sign your requests. Ensure that your computer's date and time are set correctly. If they are not, the date in the signature may not match the date of the request, and AWS rejects the request. For more information about setting the time on your Windows instance, see [Setting the Time for a Windows Instance](#) in the *Amazon EC2 User Guide for Windows Instances*.

Every time you issue a command, you must specify your access keys using the `--aws-access-key` and `--aws-secret-key` (or `-o` and `-w`) options. Alternatively, you might find it easier to store your access keys using the following environment variables:

- `AWS_ACCESS_KEY`—Your access key ID
- `AWS_SECRET_KEY`—Your secret access key

If these environment variables are set properly, their values serve as the default values for these required options, so you can omit them from the command line.

The following procedure describes how to create environment variables that specify your access keys.

### To set up your environment variables on your computer or instance

1. Click **Start**, right-click **Computer**, and then click **Properties**.
2. Click **Advanced system settings**.
3. Click **Environment Variables**.
4. Under **User variables**, click **New**.



5. In **Variable name**, type `AWS_ACCESS_KEY`.
6. In **Variable value**, specify your access key ID. Click **OK**.
7. Under **User variables**, click **New**.
8. In **Variable name**, type `AWS_SECRET_KEY`.
9. In **Variable value**, specify your secret access key. Click **OK**.

To verify that all your environment variables are set up correctly, open a new Command Prompt window and run the following command.

```
C:\> ec2-describe-regions
```

If your environment variables are set correctly, you'll see output that looks something like this.

```
REGION  us-east-1      ec2.us-east-1.amazonaws.com
REGION  eu-west-1      ec2.eu-west-1.amazonaws.com
REGION  sa-east-1      ec2.sa-east-1.amazonaws.com
REGION  ap-northeast-1 ec2.ap-northeast-1.amazonaws.com
REGION  us-west-2      ec2.us-west-2.amazonaws.com
REGION  us-west-1      ec2.us-west-1.amazonaws.com
REGION  ap-southeast-1 ec2.ap-southeast-1.amazonaws.com
```

If you get an error that this command is not recognized as an internal or external command, check the setting of the `EC2_HOME` and `Path` environment variables, fix any errors, open a new Command Prompt window, and try the command again.

If you get an error that required option `-o` is missing, check the setting of `AWS_ACCESS_KEY`, fix any errors, open a new Command Prompt window, and try the command again.

If you get an error that required option `-w` is missing, check the setting of `AWS_SECRET_KEY`, fix any errors, open a new Command Prompt window, and try the command again.

If you get a `Client.AuthFailure` error, check that you've entered your `AWS_ACCESS_KEY` and `AWS_SECRET_KEY` correctly, and check that the date and time are set correctly on your computer.

## Task 5: Set the Region (Optional)

By default, the Amazon EC2 CLI tools use the `us-east-1` region with the `ec2.us-east-1.amazonaws.com` service endpoint URL. If your instances are in a different region, you must specify the region where your instances reside. For example, if your instances are in Europe, you must specify the `eu-west-1` region by using the `--region eu-west-1` option or by setting the `EC2_URL` environment variable.

This section describes how to specify a different region by changing the service endpoint URL.

### To specify a different region on your computer or instance

1. To view available regions, see [Regions and Endpoints](#) in the *Amazon Web Services General Reference*.
2. To change the service endpoint, set the `EC2_URL` environment variable.

The following example sets `EC2_URL`.

- a. Click **Start**, right-click **Computer**, and then click **Properties**.
- b. Click **Advanced system settings**.
- c. Click **Environment Variables**.

- d. Under **User variables**, click **New**.
- e. In **Variable name**, type EC2\_URL.
- f. In **Variable value**, type `https://ec2.eu-west-1.amazonaws.com`. Click **OK**.

## Task 6: Use a Proxy (Optional)

If the computer with the installed CLI tools requires the use of a proxy server, you must tell the CLI tools to use the proxy server with the `EC2_JVM_ARGS` environment variable.

The following table contains the proxy configuration properties that can be set for the `EC2_JVM_ARGS` variable. The properties that are required depend on the type of proxy server being used. For example, the `http.proxyDomain` and `http.proxyWorkstation` properties are only used with a Windows NTLM proxy.

Property	Description
<code>https.proxyHost</code>	HTTPS proxy host. Use when <code>EC2_URL</code> specifies an HTTPS host.
<code>https.proxyPort</code>	HTTPS proxy port. Use when <code>EC2_URL</code> specifies an HTTPS host.
<code>http.proxyHost</code>	HTTP proxy host. Use when <code>EC2_URL</code> specifies an HTTP host.
<code>http.proxyPort</code>	HTTP proxy port. Use when <code>EC2_URL</code> specifies an HTTP host.
<code>http.proxyDomain</code>	Proxy domain (HTTPS and HTTP)
<code>http.proxyWorkstation</code>	Proxy workstation (HTTPS and HTTP)
<code>http.proxyUser</code>	Proxy user name (HTTPS and HTTP)
<code>http.proxyPass</code>	Proxy password (HTTPS and HTTP)
<code>http.nonProxyHosts</code>	A list of hosts that should be reached directly, bypassing the proxy. Each item in the list is separated by ' '.

### To set up the `EC2_JVM_ARGS` environment variable on your computer or instance

1. Click **Start**, right-click **Computer**, and then click **Properties**.
2. Click **Advanced system settings**.
3. Click **Environment Variables**.
4. Under **User variables**, click **New**.
5. In **Variable name**, type `EC2_JVM_ARGS`.
6. In **Variable value**, specify the proxy configuration properties. For example, `-Dhttps.proxyHost=my.proxy.com -Dhttps.proxyPort=8080`. Then click **OK**.

## Task 7: Download Remote Desktop

To connect to a Windows instance, you'll need a Remote Desktop client. The most recent versions of Windows include a Remote Desktop client already. To check whether you have one, open a Command

Prompt window and type `mstsc`. If this command displays the Remote Desktop Connection window, you're set. Otherwise, go to the [Microsoft Windows home page](#) and search for the download for Remote Desktop Connection.

Now you're ready to start using Amazon EC2 from a Command Prompt window!

## (Optional) Verify the Signature of the CLI Tools Download

Whenever you download an application from the Internet, you should authenticate the identity of the software publisher and check that the application has not been altered or corrupted since it was published. This protects you from installing a version of the application that contains a virus or other malicious code.

If you determine that the software for the CLI tools has been altered, do not unzip or install the file that you downloaded. Instead, contact Amazon Web Services.

### Topics

- [Overview \(p. 16\)](#)
- [Install the GPG Tools \(p. 16\)](#)
- [Authenticate the Public Key \(p. 17\)](#)
- [Verify the Signature of the Package \(p. 19\)](#)

## Overview

The first step is to establish trust with the software publisher: download the public key of the software publisher, check that the owner of the public key is who they claim to be, and then add the public key to your keyring. Your keyring is a collection of known public keys. You can then explicitly trust the public key, or trust it implicitly because the public key is trusted by someone with whom you have a pre-existing trust relationship.

After you've established the authenticity of the public key, you can use it to verify the signature of the application. Using security tools, you'll calculate a signature from the publisher's public key and your downloaded copy of the application. If the calculated signature matches the signature the software developer has published for the application, you can have confidence that the application has not been altered.

Amazon EC2 CLI tools are signed using GnuPG, an open implementation of the Pretty Good Privacy (OpenPGP) standard for secure digital signatures. GnuPG provides authentication and integrity checking through a 128-bit digital signature. Amazon EC2 publishes a public key and signatures you can use to verify the downloaded Amazon EC2 CLI tools. For more information about PGP and GnuPG (GPG), see <http://www.gnupg.org>.

## Install the GPG Tools

If your operating system is Linux or Unix, the GPG tools are likely already installed. To test whether the tools are installed on your system, type `gpg` at a command line prompt. If the GPG tools are installed, you get a GPG command prompt. If the GPG tools are not installed, you get an error stating that the command cannot be found. You can install the GnuPG package from a repository.

### To install GPG tools on Debian-based Linux

- From a terminal, run the following command.

```
apt-get install gnupg
```

### To install GPG tools on Red Hat–based Linux

- From a terminal, run the following command.

```
yum install gnupg
```

### To install GPG tools on Windows

- Download and install [Gpg4win](#), an implementation of GnuPG that runs on Windows.

During installation of Gpg4win, you can use the default values suggested by Gpg4win. As part of the installation process, you are asked whether you want to define a root certificate. Defining a root certificate is a way to establish trust with many software publishers; setting a root certificate establishes trust with all publishers trusted by that certificate. If you want to define a root certificate, follow the instructions in the text box. If not, click the check box to skip this step. Either option is fine for the purpose of verifying the signature of the Amazon EC2 CLI tools package.

### To install GPG tools on Mac OS X

- Download and install [GPGTools](#), an implementation of GnuPG that runs on Mac OS X.

In addition to installing pre-compiled implementations of GnuPG, you can also download and compile the source code from <http://gnupg.org/download/index.en.html>.

After you have installed a set of GPG tools, use them to create a public-private key set. You'll need this later to sign changes to your trust status. If you have previously installed the GPG tools and already have a public-private key set, you can skip this step.

### To create a private key for the GPG tools

- From the command line, run the following command.

```
gpg --gen-key
```

- Answer the questions that follow. You can use the suggested default values. Make a note of the passphrase you use to create the private key. You'll need this value later.

## Authenticate the Public Key

The next step in the process is to authenticate the EC2 Packages public key and add it as a trusted key in your GPG keyring.

### To authenticate the EC2 Packages public key

- Create a text file named `ec2-packages-public.key` and copy the public key from [EC2 Packages Public Key](#) into the text file. This includes everything from `-----BEGIN PGP PUBLIC KEY BLOCK-----` to `-----END PGP PUBLIC KEY BLOCK-----`. Save the text file.

#### Note

This text file must use ASCII encoding.

2. Import the EC2 Packages public key into your keyring using the following command in the directory where you saved the file `ec2-packages-public.key`.

```
gpg --import ec2-packages-public.key
```

The command returns results similar to the following. Make a note of the key value; you'll need it in the next step. In the example below, the key value is `0349E66A`.

```
gpg: key 0349E66A: public key "AWS EC2 Packages <ec2-packages@amazon.com>"  
imported  
gpg: Total number processed: 1  
gpg:         imported: 1 (RSA: 1)  
gpg: 3 marginal(s) needed, 1 complete(s) needed, PGP trust model  
gpg: depth: 0  valid:   2  signed:   1  trust: 0-, 0q, 0n, 0m, 0f, 2u  
gpg: depth: 1  valid:   1  signed:   0  trust: 0-, 0q, 0n, 0m, 1f, 0u  
gpg: next trustdb check due at 2014-07-20
```

### Note

If you get an error starting with `invalid radix64 character`, remove the following line from the `ec2-packages-public.key` file: `Version: GnuPG/MacGPG2 v2.0.14 (Darwin)`

3. Verify the fingerprint by running the following command, where `key-value` is replaced by the value from the previous step.

```
gpg --fingerprint key-value
```

This command returns results similar to the following. Compare the key fingerprint to that published on [EC2 Packages Public Key](#). They should match. If they don't, do not continue to install the CLI tools, and contact Amazon Web Services.

```
pub 4096R/0349E66A 2011-04-04  
Key fingerprint = A262 37CF 2294 C30E 9844 96C9 116B 3651 0349 E66A  
uid AWS EC2 Packages <ec2-packages@amazon.com>
```

4. If the fingerprint matches the one published on the [aws.amazon.com](#) website, you may choose to trust EC2 Packages public key. To do so, run the following command, where `key-value` is replaced by the key value from Step 2.

```
gpg --edit-key key-value
```

Type the following command at the GPG tools prompt.

```
trust
```

The GPG tools ask you to establish a level of trust for EC2 Packages, with a prompt such as the following. To learn more about these trust options, go to the [The GNU Privacy Handbook](#).

```
Please decide how far you trust this user to correctly verify other users'  
keys  
(by looking at passports, checking fingerprints from different sources,  
etc.)
```

```
1 = I don't know or won't say
```

```
2 = I do NOT trust
3 = I trust marginally
4 = I trust fully
5 = I trust ultimately
m = back to the main menu

Your decision?
```

Type 4 and press **Enter**.

5. Sign the key with your private key (created when you installed the GPG tools) to set the new trust level. Do this using the following command.

```
sign
```

You are asked to confirm, type `y`, and press **Enter**. You are asked for the passcode that you used when you created your private key. Type your passcode and press **Enter**.

6. Save your changes using the following command.

```
save
```

This saves your changes to the keyring. It should also exit the PGP session. If it doesn't, press **CTRL+Z** to exit the PGP session and return to the main terminal.

## Verify the Signature of the Package

With the GPG tools installed and the EC2 Packages public key authenticated and the EC2 Packages public key trusted, you're ready to check the signature of the Amazon EC2 CLI tools package.

### To verify the signature of Amazon EC2 CLI tools package

1. Download the Amazon EC2 CLI tools package, `ec2-api-tools.zip`, from [Amazon EC2 CLI Tools](#).
2. Create a new text file named `ec2-api-tools.zip.asc`. On the [Amazon EC2 CLI Tools](#) page, under **Related Documents**, copy the contents from the **Verify the signature of the package** link into this file. Copy everything including the `-----BEGIN PGP SIGNATURE-----` to `-----END PGP SIGNATURE-----` lines. Save the file.
3. Verify the signature of the CLI tools by typing the following at a command line prompt in the directory where you saved the file `ec2-api-tools.zip.asc` and the CLI package `ec2-api-tools.zip`. Both files must be present.

```
gpg --verify ec2-api-tools.zip.asc ec2-api-tools.zip
```

The output should be something like the following.

```
gpg: Signature made Mon Mar 12 14:51:33 2012 PDT using RSA key ID 0349E66A
gpg: Good signature from "AWS EC2 Packages <ec2-packages@amazon.com>"
```

If the output contains the phrase 'Good signature from "AWS EC2 Packages <ec2-packages@amazon.com>"' the signature has successfully been verified, and you can proceed to unzip and install the Amazon EC2 CLI tools. If the output includes the phrase "BAD signature", check that you performed the procedure correctly. If you continue to get this response, contact Amazon Web Services and do not unzip or install the file that you downloaded.

# Launching an Instance Using the Amazon EC2 CLI

---

You can use the Amazon EC2 command line interface (CLI) tools to launch an instance. (If you haven't already installed the Amazon EC2 CLI tools, see [Setting Up the Amazon EC2 CLI \(p. 3\)](#).)

Before you can launch your instance, you must create a key pair and a security group. Your key pair is required to decrypt login information for when you connect to your instance. A security group acts as a firewall that controls the traffic allowed to reach your instance. You must add a rule to your security group that enables you to access your instance. For more information, see [Amazon EC2 Key Pairs](#) and [Amazon EC2 Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances*.

## To get started using an instance

1. [Create a key pair \(p. 20\)](#)
2. [Create a security group \(p. 21\)](#)
3. [Add a rule to your security group \(p. 22\)](#)
4. [Launch an instance \(p. 22\)](#)
5. [Connect to your instance \(p. 23\)](#)

## Creating a Key Pair

To create a key pair named `my-key-pair`, use the `ec2-create-keypair` ([p. 136](#)) command as follows:

```
ec2-create-keypair my-key-pair
```

The following is example output:

```
KEYPAIR my-key-pair
 1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:2d:7d:b8:ca:9f:f5:f1:6f
---- BEGIN RSA PRIVATE KEY ----
MIICiTCCAfICCD6m7oRw0uXOjANBgkqhkiG9w0BAQUFADCBiDELMAkGA1UEBhMC
VVMxCzAJBgNVBAGTAldBMRAdDgYDVQQHEwdTZWF0dGx1MQ8wDQYDVQQKEwZBbWF6
b24xFDASBgNVBASTC0lBTSBDb25zb2x1MRIwEAYDVQQDEw1UZXR0Q21sYWMxH3Ad
```

```
BgkqhkiG9w0BCQEWEG5vb25lQGftYXpvbi5jb20wHhcNMTEwNDI1MjA0NTIxWhcN
MTIwNDI0MjA0NTIxWjCBiDELMAKGA1UEBhMCVVMxYzA1BGNVBAgTALdBMRAwDgYD
VQQHEwR0ZWF0dGx1MQ8wDQYDQVQKEwZBbWF6b24xZDASBgNVBAsTC01BTSDb25z
b2x1MRItEAYDVQQDEw1UZXR0Q21sYWVhZAdBgkqhkiG9w0BCQEWEG5vb25lQGft
YXpvbi5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMaK0dn+a4GmWIWJ
21uUSfwfEvySWtC2XADZ4nB+BLYgVIk60CpiwsZ3G93vUEIO3IyNoH/f0wYK8m9T
rDHudUZg3qX4waLG5M43q7Wgc/MbQITxOUSQv7c7ugFFDzQGBzZswY6786m86gpE
Ibb3OhjZnczvQAaRHhd1QWIMm2nrAgMBAAEwDQYJKoZIhvcNAQEFBQADgYEAtCu4
nUhVVxYUntneD9+h8Mg9q6q+auNKyExzyLwaxlAoo7TJHidbtS4J5iNmZgXL0Fkb
FFBjvSfpJlJ00zhhNYS5f6GuoEDmFJl0ZxBHjJnyp378OD8uTs7fLvJx79LjStB
NYiytVbZPQUQ5Yaxu2jXnimvw3rrszlaEXAMPLE
-----END RSA PRIVATE KEY-----
```

Make a note of the fingerprint for the private key of the key pair displayed on the first line. You can use the fingerprint to verify that your private key is a correct match with the public key stored in AWS. You do this by comparing the fingerprint for the private key with the fingerprint of the public key. They should be identical.

Create a file named `my-key-pair.pem` and paste the entire key, including the following lines:

```
"-----BEGIN RSA PRIVATE KEY-----"
"-----END RSA PRIVATE KEY-----"
```

Save the file with ASCII encoding so that it can be read by an SSH client when you connect to your instance.

If you're using an SSH client on a Linux computer to connect to your instance, use the following command to set the permissions of your private key file so that only you can read it.

```
chmod 400 my-key-pair.pem
```

## Creating a Security Group

To create a security group, use the [ec2-create-group](#) (p. 119) command.

You create a security group for either EC2-Classic or EC2-VPC. For more information, see [Supported Platforms](#) in the *Amazon EC2 User Guide for Linux Instances*.

### EC2-Classic

The following command creates a security group named `my-security-group` for EC2-Classic:

```
ec2-create-group my-security-group -d "My security group"
```

The following is example output:

```
GROUP    sg-xxxxxxxx    my-security-group    My security group
```

### EC2-VPC

The following command creates a security group named `my-security-group` for EC2-VPC:



```
ec2-create-group my-security-group -d "My security group" -c vpc-xxxxxxxx
```

The following is example output:

```
GROUP    sg-xxxxxxxx    my-security-group    My security group
```

## Adding a Rule to Your Security Group

If you're launching a Windows instance, you must add a rule to `my-security-group` to allow inbound traffic on TCP port 3389 (RDP). If you're launching a Linux instance, you must add a rule to allow inbound traffic on TCP port 22 (SSH). Use the [ec2-authorize](#) (p. 73) command to add a rule to your security group. One of the required parameters of this command is the public IP address of your computer, in CIDR notation.

### Tip

You can get the public IP address of your local computer using a service. For example, we provide the following service: <http://checkip.amazonaws.com/>. To locate another service that provides your IP address, use the search phrase "what is my IP address". If you are connecting through an ISP or from behind your firewall without a static IP address, you need to find out the range of IP addresses used by client computers.

## EC2-Classic

The following command adds a rule for RDP to a security group for EC2-Classic:

```
ec2-authorize my-security-group -p 3389 -s 203.0.113.25/32
```

The following command adds a rule for SSH to a security group for EC2-Classic:

```
ec2-authorize my-security-group -p 22 -s 203.0.113.25/32
```

## EC2-VPC

The following command adds a rule for RDP to a security group for EC2-VPC:

```
ec2-authorize sg-xxxxxxxx -P tcp -p 3389 -s 203.0.113.25/32
```

The following command adds a rule for SSH to a security group for EC2-VPC:

```
ec2-authorize sg-xxxxxxxx -P tcp -p 22 -s 203.0.113.25/32
```

## Launching an Instance

To launch an Amazon EC2 instance, you need the key pair and security group that you created. You also need to select an Amazon Machine Image (AMI) and note its AMI ID (`ami-xxxxxxxx`). You can find an AMI using the Amazon EC2 console, or you can go to [AWS Marketplace](#).

Use the [ec2-run-instances](#) (p. 693) command to launch an instance into either EC2-Classic or EC2-VPC.

## EC2-Classic

The following command launches a `t1.micro` instance in EC2-Classic:

```
ec2-run-instances ami-xxxxxxxx -t t1.micro -k my-key-pair -g my-security-group
```

The following is example output for EC2-Classic:

```
RESERVATION    r-xxxxxxxx    111122223333    my-security-group
INSTANCE       i-xxxxxxxx    ami-xxxxxxxx    pending my-key-pair    0
                t1.micro
2013-09-25T22:25:43+0000    us-east-1d    windows    monitoring-disabled
                ebs
hvm            xen            sg-xxxxxxxx    default false
```

## EC2-VPC

The following command launches a `t1.micro` instance into a nondefault subnet in EC2-VPC, and requests a public IP address:

```
ec2-run-instances ami-xxxxxxxx -t t1.micro -s subnet-xxxxxxxx -k my-key-pair -g sg-xxxxxxxx --associate-public-ip-address true
```

The following is example output for EC2-VPC:

```
RESERVATION    r-xxxxxxxx    111122223333
INSTANCE       i-xxxxxxxx    ami-xxxxxxxx    ip-10-0-1-153.ec2.internal
                pending
my-key-pair    0            t1.micro    2013-09-25T22:25:43+0000
                us-east-1d    windows
monitoring-disabled    10-0-1-153    vpc-xxxxxxxx    subnet-xxxxxxxx
                ebs            hvm            xen
sg-xxxxxxxx    default false
NIC            eni-xxxxxxxx    subnet-xxxxxxxx    vpc-xxxxxxxx    111122223333    in-
use
10.0.1.153    ip-10-0-1-153.ec2.internal    true
NICATTACHMENT    eni-attach-xxxxxxxx    0    attaching
2013-09-25T16:10:56-0800    true
GROUP         sg-xxxxxxxx    my-security-group
PRIVATEIPADDRESS    10.0.1.153    ip-10-0-1-153.ec2.internal
```

## Connecting to Your Instance

Initially, your instance is in the `pending` state, but will be in the `running` state in a few minutes. Then, you can view updated information about the instance using the [ec2-describe-instances \(p. 349\)](#) command, such as the updated state, the root volume, the public and private IP addresses, and the public DNS name.

While your instance is running, you can connect to it and use it just as you'd use a computer sitting in front of you. For more information, see [Connect to Your Amazon EC2 Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

# List of Commands by Function

---

The Amazon EC2 CLI includes commands for Amazon EC2, Amazon EBS, and Amazon VPC. Before you can start using the tools, you must download and configure them. For more information, see the following topics:

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## **Account Attributes**

- [ec2-describe-account-attributes \(p. 282\)](#)

## **AWS Marketplace**

- [ec2-confirm-product-instance \(p. 100\)](#)

## **AMIs**

- [ec2-copy-image \(p. 104\)](#)
- [ec2-create-image \(p. 123\)](#)
- [ec2-deregister \(p. 279\)](#)
- [ec2-describe-image-attribute \(p. 325\)](#)
- [ec2-describe-images \(p. 329\)](#)
- [ec2-migrate-image \(p. 576\)](#)
- [ec2-modify-image-attribute \(p. 581\)](#)
- [ec2-register \(p. 626\)](#)
- [ec2-reset-image-attribute \(p. 671\)](#)

## **Bundle Tasks**

- [ec2-bundle-instance \(p. 79\)](#)
- [ec2-cancel-bundle-task \(p. 84\)](#)

- [ec2-describe-bundle-tasks](#) (p. 295)

### **ClassicLink**

- [ec2-attach-classic-link-vpc](#) (p. 56)
- [ec2-describe-classic-link-instances](#) (p. 300)
- [ec2-describe-vpc-classic-link](#) (p. 480)
- [ec2-detach-classic-link-vpc](#) (p. 512)
- [ec2-disable-vpc-classic-link](#) (p. 531)
- [ec2-enable-vpc-classic-link](#) (p. 547)

### **Customer Gateways (Amazon VPC)**

- [ec2-create-customer-gateway](#) (p. 112)
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- [ec2-describe-customer-gateways](#) (p. 307)

### **DHCP Options (Amazon VPC)**

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### **Elastic Block Store**

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- [ec2-create-snapshot](#) (p. 166)
- [ec2-create-volume](#) (p. 180)
- [ec2-delete-disk-image](#) (p. 214)
- [ec2-delete-snapshot](#) (p. 246)
- [ec2-delete-volume](#) (p. 258)
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- [ec2-describe-snapshots](#) (p. 429)
- [ec2-describe-volume-attribute](#) (p. 461)
- [ec2-describe-volumes](#) (p. 470)
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- [ec2-detach-volume](#) (p. 521)
- [ec2-enable-volume-io](#) (p. 544)
- [ec2-modify-snapshot-attribute](#) (p. 600)
- [ec2-modify-volume-attribute](#) (p. 606)
- [ec2-reset-snapshot-attribute](#) (p. 680)

### **Elastic IP Addresses**

- [ec2-allocate-address](#) (p. 37)
- [ec2-associate-address](#) (p. 45)

- [ec2-describe-addresses](#) (p. 286)
- [ec2-disassociate-address](#) (p. 534)
- [ec2-release-address](#) (p. 636)

### **Elastic Network Interfaces (Amazon VPC)**

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- [ec2-attach-network-interface](#) (p. 63)
- [ec2-create-network-interface](#) (p. 147)
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- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-describe-network-interface-attribute](#) (p. 376)
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- [ec2-modify-network-interface-attribute](#) (p. 591)
- [ec2-reset-network-interface-attribute](#) (p. 677)
- [ec2-unassign-private-ip-addresses](#) (p. 720)

### **Instances**

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- [ec2-describe-instance-status](#) (p. 343)
- [ec2-describe-instances](#) (p. 349)
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- [ec2-create-internet-gateway](#) (p. 133)
- [ec2-delete-internet-gateway](#) (p. 221)
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# Commands (CLI Tools)

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You can use the CLI tools to manage your Amazon EC2 resources (such as instances, security groups, and volumes) and your Amazon VPC resources (such as VPCs, subnets, route tables, and Internet gateways). Before you can start using the tools, you must download and configure them. For more information, see the following topics:

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## Topics

- [ec2-accept-vpc-peering-connection \(p. 34\)](#)
- [ec2-allocate-address \(p. 37\)](#)
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## ec2-accept-vpc-peering-connection

### Description

Accepts a VPC peering connection request. To accept a request, the VPC peering connection must be in the `pending-acceptance` state, and you must be the owner of the peer VPC. Use the [ec2-describe-vpc-peering-connections](#) (p. 491) command to view your outstanding VPC peering connection requests.

The short version of this command is **ec2apcx**.

#### Tip

If you are using the AWS CLI, see [accept-vpc-peering-connection](#) instead.

### Syntax

```
ec2-accept-vpc-peering-connection vpc_peering_connection
```

### Options

Name	Description
<i>vpc_peering_connection</i>	The VPC peering connection ID.

Name	Description
	Type: String Default: None Required: Yes Example: pcx-1a2b3c4d

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPC peering connection information
  - The `VPCPEERINGCONNECTION` identifier
  - The VPC peering connection ID
  - The status of the VPC peering connection request
- The requester VPC information
  - The `REQUESTERVPCINFO` identifier
  - The VPC ID
  - The CIDR block
  - The AWS account ID

- The peer VPC information
  - The ACCEPTERVPCINFO identifier
  - The VPC ID
  - The CIDR block
  - The AWS account ID

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example accepts the specified VPC peering connection request.

```
PROMPT> ec2-accept-vpc-peering-connection pcx-1a2b3c4d  
VPCPEERINGCONNECTION pcx-1a2b3c4d provisioning: Provisioning  
REQUESTERVPCINFO vpc-111abc45 10.0.1.0/28 444455556666  
ACCEPTERVPCINFO vpc-44455566 10.0.0.0/28 444455556666
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [AcceptVpcPeeringConnection](#)

### Related Commands

- [ec2-delete-vpc-peering-connection \(p. 267\)](#)
- [ec2-describe-vpc-peering-connections \(p. 491\)](#)
- [ec2-create-vpc-peering-connection \(p. 194\)](#)
- [ec2-reject-vpc-peering-connection \(p. 633\)](#)
- [ec2-create-route \(p. 159\)](#)
- [ec2-replace-route \(p. 647\)](#)

## ec2-allocate-address

### Description

Acquires an Elastic IP address.



An Elastic IP address is for use either in the EC2-Classic platform or in a VPC. For more information, see [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2allocaddr**.

**Tip**

If you are using the AWS CLI, see [allocate-address](#) instead.

## Syntax

**ec2-allocate-address** [-d *domain*]

## Options

Name	Description
-d, --domain <i>domain</i>	Set to <code>vpc</code> to allocate the address for use with instances in a VPC. Type: String Valid values: <code>vpc</code> Default: The address is for use in EC2-Classic. Required: Conditional Condition: Required when allocating the address for use in a VPC. Example: <code>-d vpc</code>

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ADDRESS identifier
- The Elastic IP address for use with your account
- Indicates whether this Elastic IP address is for use with instances in EC2-Classic (`standard`) or instances in a VPC (`vpc`).
- [EC2-VPC] The allocation ID (an ID that Amazon EC2 assigns to represent the allocation of an address for use in a VPC)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command allocates an Elastic IP address for use with instances in EC2-Classic.

```
PROMPT> ec2-allocate-address
ADDRESS 192.0.2.1      standard
```

### Example 2

This example command allocates an Elastic IP address for use with instances in a VPC.

```
PROMPT> ec2-allocate-address -d vpc
ADDRESS 198.51.100.1   vpc      eipalloc-5723d13e
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [AllocateAddress](#)

## Related Commands

- [ec2-associate-address](#) (p. 45)
- [ec2-describe-addresses](#) (p. 286)
- [ec2-disassociate-address](#) (p. 534)
- [ec2-release-address](#) (p. 636)

# ec2-assign-private-ip-addresses

## Description

Assigns one or more secondary private IP addresses to the specified network interface. You can specify one or more specific secondary IP addresses, or you can specify the number of secondary IP addresses to be automatically assigned within the subnet's CIDR block range. The number of secondary IP addresses that you can assign to an instance varies by instance type. For more information, see [Private IP Addresses Per ENI Per Instance Type](#) and [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2apip**.

### Tip

If you are using the AWS CLI, see [assign-private-ip-addresses](#) instead.

## Syntax

```
ec2-assign-private-ip-addresses --network-interface interface_id {[--secondary-private-ip-address-count count] | [--secondary-private-ip-address ip_address]}
```

## Options

Name	Description
<code>-n, --network-interface <i>interface_id</i></code>	The ID of the network interface. Type: String Default: None Required: Yes Example: -n eni-bc7299d4
<code>--secondary-private-ip-address <i>ip_address</i></code>	The IP address to be assigned as a secondary private IP address to the network interface. This option can be used multiple times to assign multiple secondary IP addresses to the network interface.  If you don't specify an IP address, Amazon EC2 selects an IP address within the subnet range. Type: String Default: None Required: Conditional

Name	Description
	Condition: You can't specify this parameter when also specifying <code>--secondary-private-ip-address-count</code> . Example: <code>--secondary-private-ip-address 10.0.2.18 --secondary-private-ip-address 10.0.2.28</code>
<code>--secondary-private-ip-address-count</code> <i>count</i>	The number of secondary IP addresses to assign to the network interface. Type: Integer Default: None Required: Conditional Condition: You can't specify this parameter when also specifying <code>--secondary-private-ip-address</code> . Example: <code>--secondary-private-ip-address-count 2</code>
<code>--allow-reassignment</code>	Specifies whether to allow an IP address that is already assigned to another network interface to be reassigned to the specified network interface. Type: Boolean Default: <code>false</code> Required: No

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).

Option	Description
	Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns true if the operation succeeds or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command assigns two secondary private IP addresses (10.0.0.118 and 10.0.0.119) to the network interface `eni-c08a35a9`.

```
PROMPT> ec2-assign-private-ip-addresses --network-interface eni-c08a35a9
--secondary-private-ip-address 10.0.0.118 --secondary-private-ip-address
10.0.0.119
RETURN true
```

### Example 2

This example command assigns two secondary private IP addresses to the network interface `eni-c08a35a9`. Amazon EC2 automatically assigns these IP addresses from the available IP addresses within the subnet's CIDR block range.

```
PROMPT> ec2-assign-private-ip-addresses --network-interface eni-c08a35a9
--secondary-private-ip-address-count 2
RETURN true
```

### Example 3

This example command assigns a secondary private IP address of 10.0.0.82 to the network interface `eni-73e05a1`.

```
PROMPT> ec2-assign-private-ip-addresses --network-interface eni-73e05a1
--secondary-private-ip-address 10.0.0.82
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [AssignPrivateIpAddresses](#)

## Related Commands

- [ec2-unassign-private-ip-addresses](#) (p. 720)

# ec2-associate-address

## Description

Associates an Elastic IP address with an instance or a network interface. For more information, see [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

[EC2-Classic, VPC in an EC2-VPC-only account] If the Elastic IP address is already associated with a different instance, it is disassociated from that instance and associated with the specified instance.

[VPC in an EC2-Classic account] If you do not specify a private IP address, the Elastic IP address is associated with the primary IP address. If the Elastic IP address is already associated with a different instance or a network interface, you get an error unless you specify the `--allow-reassociation` option.

This is an idempotent operation. If you perform the operation more than once, Amazon EC2 doesn't return an error.

The short version of this command is **ec2assocaddr**.

### Tip

If you are using the AWS CLI, see [associate-address](#) instead.

## Syntax

```
ec2-associate-address [-i instance_id | -n interface_id] [ip_address |
-a allocation_id] [--private-ip-address private_ip_address] [--allow-
reassociation]
```

## Options

Name	Description
<code>-i, --instance <i>instance_id</i></code>	The ID of the instance. Type: String Default: None Required: Conditional Condition: Required for EC2-Classic. For EC2-VPC, you can specify either an instance ID or a network interface ID, but not both. Example: <code>-i i-43a4412a</code>
<code><i>ip_address</i></code>	The Elastic IP address. Type: String Default: None Required: Conditional Condition: Required for EC2-Classic. Example: <code>192.0.2.1</code>
<code>-a, --allocation-id <i>allocation_id</i></code>	[EC2-VPC] The allocation ID.



Name	Description
	Type: String Default: None Required: Conditional Condition: Required for EC2-VPC. Example: -a eipalloc-5723d13e
-n, --network-interface <i>interface_id</i>	[EC2-VPC] The ID of the network interface. Association fails when specifying an instance ID unless exactly one interface is attached. Type: String Default: None Required: Conditional Condition: If the instance has more than one network interface, you must specify a network interface ID. Example: -n eni-bc7299d4
-p, --private-ip-address <i>private_ip_address</i>	[EC2-VPC] The primary or secondary private IP address to associate with the Elastic IP address. If no private IP address is specified, the Elastic IP address is associated with the primary private IP address. Type: String Default: None Required: No Example: -p 10.0.0.45
--allow-reassociation	[EC2-VPC] Allows an Elastic IP address that is already associated with an instance or a network interface to be re-associated with the specified instance or network interface. Otherwise, the operation fails. Type: Boolean Default: The operation fails if the address is already associated. Required: No Example: --allow-reassociation

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ADDRESS identifier
- The Elastic IP address
- The instance or network interface to which the Elastic IP address is associated
- [EC2-VPC] The allocation ID
- [EC2-VPC] If specified, the private IP address associated with the Elastic IP address

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command associates an Elastic IP address with an instance in EC2-Classic.

```
PROMPT> ec2-associate-address 203.0.113.0 -i i-43a4412a
ADDRESS 203.0.113.0 i-43a4412a
```

### Example 2

This example command associates an Elastic IP address with an instance in a VPC.

```
PROMPT> ec2-associate-address -a eipalloc-5723d13e -i i-4fd2431a
ADDRESS i-43a4412a eipalloc-5723d13e eipassoc-fc5ca095
```

### Example 3

This example command associates an Elastic IP address with a network interface.

```
PROMPT> ec2-associate-address -a eipalloc-4a4c6c23 -n eni-1001fa78
ADDRESS i-1ae1ae78 eipalloc-4a4c6c23 eipassoc-1841907a
```

## Example 4

This example command associates an Elastic IP address with a private IP address for the specified instance in a VPC. The `allow-reassociation` option allows the Elastic IP address to be associated with the specified instance even if it's already associated with a different instance or a network interface.

```
PROMPT> ec2-associate-address -a eipalloc-bf66dcd6 -i i-ba6a0dee -p
10.0.0.85 --allow-reassociation

ADDRESS          i-ba6a0dee          eipalloc-bf66dcd6          eipassoc-9c66dcf5
10.0.0.85
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [AssociateAddress](#)

## Related Commands

- [ec2-allocate-address \(p. 37\)](#)
- [ec2-describe-addresses \(p. 286\)](#)
- [ec2-disassociate-address \(p. 534\)](#)
- [ec2-release-address \(p. 636\)](#)

# ec2-associate-dhcp-options

## Description

Associates a set of DHCP options (that you've previously created) with the specified VPC, or associates no DHCP options with the VPC.

After you associate the options with the VPC, any existing instances and all new instances that you launch in that VPC use the options. You don't need to restart or relaunch the instances. They automatically pick up the changes within a few hours, depending on how frequently the instance renews its DHCP lease. You can explicitly renew the lease using the operating system on the instance.

For more information, see [DHCP Options Sets](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2assocdopt**.

**Tip**

If you are using the AWS CLI, see [associate-dhcp-options](#) instead.

## Syntax

```
ec2-associate-dhcp-options { dhcp_options_id | default } -c vpc_id
```

## Options

Name	Description
<i>dhcp_options_id</i>	The ID of the DHCP options set, or <code>default</code> to associate no DHCP options with the VPC. Type: String Default: None Required: Yes Example: <code>dopt-7a8b9c2d</code>
<code>-c <i>vpc_id</i></code>	The ID of the VPC. Type: String Default: None Required: Yes Example: <code>-c vpc-1a2b3c4d</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The DHCP\_OPTIONS identifier
- The ID of the DHCP options (or `default` if no DHCP options are associated with the VPC)
- The ID of the VPC

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command associates the DHCP options set with the ID `dopt-7a8b9c2d` and the VPC with the ID `vpc-1a2b3c4d`.

```
PROMPT> ec2-associate-dhcp-options dopt-7a8b9c2d -c vpc-1a2b3c4d  
DHCP_OPTIONS dopt-7a8b9c2d vpc-1a2b3c4d
```

### Example 2

This example command changes the VPC with the ID `vpc-1a2b3c4d` to have no associated DHCP options set.

```
PROMPT> ec2-associate-dhcp-options default -c vpc-1a2b3c4d  
DHCP_OPTIONS default vpc-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [AssociateDhcpOptions](#)

## Related Commands

- [ec2-create-dhcp-options](#) (p. 115)
- [ec2-delete-dhcp-options](#) (p. 211)
- [ec2-describe-dhcp-options](#) (p. 312)

# ec2-associate-route-table

## Description

Associates a subnet with a route table. The subnet and route table must be in the same VPC. This association causes traffic originating from the subnet to be routed according to the routes in the route table. The action returns an association ID, which you need in order to disassociate the route table from the subnet later. A route table can be associated with multiple subnets.

For more information about route tables, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2assocrtb**.

### Tip

If you are using the AWS CLI, see [associate-route-table](#) instead.

## Syntax

```
ec2-associate-route-table route_table_id -s subnet_id
```

## Options

Name	Description
<i>route_table_id</i>	The ID of the route table. Type: String Default: None Required: Yes Example: rtb-6aa34603
-s <i>subnet_id</i>	The ID of the subnet. Type: String Default: None Required: Yes Example: -s subnet-92a045fb

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The ASSOCIATION identifier
- The route table association ID (needed to disassociate the route table)
- The ID of the route table

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command associates the route-table with the ID `rtb-6aa34603` with the subnet with the ID `subnet-92a045fb`.

```
PROMPT> ec2-associate-route-table rtb-6aa34603 -s subnet-92a045fb
ASSOCIATION rtbassoc-61a34608 rtb-6aa34603 subnet-92a045fb
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [AssociateRouteTable](#)

## Related Commands

- [ec2-create-route-table](#) (p. 163)
- [ec2-delete-route-table](#) (p. 243)
- [ec2-describe-route-tables](#) (p. 421)
- [ec2-disassociate-route-table](#) (p. 538)
- [ec2-replace-route-table-association](#) (p. 651)

# ec2-attach-classic-link-vpc

## Description

Links an EC2-Classic instance to a ClassicLink-enabled VPC through one or more of the VPC's security groups. You cannot link an EC2-Classic instance to more than one VPC at a time. You can only link an instance that's in the `running` state. An instance is automatically unlinked from a VPC when it's stopped - you can link it to the VPC again when you restart it.

After you've linked an instance, you cannot change the VPC security groups that are associated with it. To change the security groups, you must first unlink the instance, and then link it again.

### Note

Linking your instance to a VPC is sometimes referred to as *attaching* your instance.

The short version of this command is `ec2attachcl`.

### Tip

If you are using the AWS CLI, see [attach-classic-link-vpc](#) instead.

## Syntax

```
ec2-attach-classic-link-vpc --group-id group_id --instance-id instance_id --  
vpc-id vpc_id
```

## Options

Name	Description
<code>-g --group-id <i>group_id</i></code>	<p>The ID of a VPC's security group. You cannot specify a security group from a different VPC. You can specify more than one group in the request.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: <code>--group-id sg-11122233</code></p>

Name	Description
<code>-i instance_id</code>	<p>The ID of an EC2-Classical instance to link to the ClassicLink-enabled VPC.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: <code>-i i-1a1a1a1a</code></p>
<code>-c vpc_id</code>	<p>The ID of the ClassicLink-enabled VPC.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: <code>-c vpc-1a2b3c4d</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example 1

This example links instance `i-1a2b3c4d` to VPC `vpc-88888888` through the VPC's security group `sg-12312312`.

```
PROMPT> ec2-attach-classic-link-vpc -i i-1a2b3c4d -c vpc-88888888 --group-id
sg-12312312
RETURN true
```

### Example 2

This example links instance `i-1a2b3c4d` to VPC `vpc-88888888` through the VPC's security groups `sg-12312312` and `sg-44455566`.

```
PROMPT> ec2-attach-classic-link-vpc -i i-1a2b3c4d -c vpc-88888888 --group-id
sg-12312312 --group-id sg44455566
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [AttachClassicLinkVpc](#)

## Related Commands

- [ec2-disable-vpc-classic-link](#) (p. 531)
- [ec2-enable-vpc-classic-link](#) (p. 547)
- [ec2-detach-classic-link-vpc](#) (p. 512)
- [ec2-describe-classic-link-instances](#) (p. 300)
- [ec2-describe-vpc-classic-link](#) (p. 480)

# ec2-attach-internet-gateway

## Description

Attaches an Internet gateway to a VPC, enabling connectivity between the Internet and the VPC. For more information about your VPC and Internet gateway, see the [Amazon VPC User Guide](#).

The short version of this command is **ec2attigw**.

### Tip

If you are using the AWS CLI, see [attach-internet-gateway](#) instead.

## Syntax

```
ec2-attach-internet-gateway internet_gateway_id -c vpc_id
```

## Options

Name	Description
<i>internet_gateway_id</i>	The ID of the Internet gateway. Type: String Default: None Required: Yes Example: igw-c3a643aa
<code>-c</code> , <code>--vpc vpc_id</code>	The ID of the VPC. Type: String Default: None Required: Yes Example: -c vpc-d9a045b0

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.



## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The ATTACHMENT identifier
- The ID of the VPC
- The attachment state (attaching, attached, detached, detaching, error)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command attaches the Internet gateway with the ID `igw-eaad4883` to the VPC with the ID `vpc-11ad4878`.

```
PROMPT> ec2-attach-internet-gateway igw-eaad4883 -c vpc-11ad4878
ATTACHMENT      vpc-11ad4878    attaching
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [AttachInternetGateway](#)

## Related Commands

- [ec2-create-internet-gateway](#) (p. 133)
- [ec2-delete-internet-gateway](#) (p. 221)
- [ec2-describe-internet-gateways](#) (p. 362)
- [ec2-detach-internet-gateway](#) (p. 515)

# ec2-attach-network-interface

## Description

Attaches a network interface to an instance.

The short version of this command is **ec2attnic**.

### Tip

If you are using the AWS CLI, see [attach-network-interface](#) instead.

## Syntax

```
ec2-attach-network-interface interface_id -i, --instance instance_id -d, --device-index device_index
```

## Options

Name	Description
<i>interface_id</i>	The ID of the network interface. Type: String Default: None Required: Yes Example: eni-b35da6da
-i, --instance <i>instance_id</i>	The ID of the instance. Type: String Default: None Required: Yes Example: -i i-640a3c17
-d, --device-index <i>device_index</i>	The index of the device for the network interface attachment. Type: String Default: None

Name	Description
	Required: Yes Example: -d 1

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the

Option	Description
	required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the ID of the network interface attachment.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command attaches the specified network interface to the specified instance.

```
PROMPT> ec2-attach-network-interface eni-b35da6da -i i-640a3c17 -d 1
eni-attach-dd3fdab4
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [AttachNetworkInterface](#)

### Related Commands

- [ec2-create-network-interface](#) (p. 147)
- [ec2-delete-network-interface](#) (p. 234)
- [ec2-describe-network-interface-attribute](#) (p. 376)
- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-detach-network-interface](#) (p. 518)
- [ec2-modify-network-interface-attribute](#) (p. 591)
- [ec2-reset-network-interface-attribute](#) (p. 677)

## ec2-attach-volume

### Description

Attaches an Amazon EBS volume to a running or stopped instance and exposes it to the instance with the specified device name.

Encrypted Amazon EBS volumes can be attached only to instances that support Amazon EBS encryption. For more information, see [Amazon EBS encryption](#) in the *Amazon EC2 User Guide for Linux Instances*.

For a list of supported device names, see [Attaching the Volume to an Instance](#). Any device names that aren't reserved for instance store volumes can be used for Amazon EBS volumes. For more information, see [Amazon EC2 Instance Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

#### Note

If a volume has an AWS Marketplace product code:

- The volume can be attached only to a stopped instance.
- AWS Marketplace product codes are copied from the volume to the instance.
- You must be subscribed to the product.
- The instance type and operating system of the instance must support the product. For example, you can't detach a volume from a Windows instance and attach it to a Linux instance.

For an overview of the AWS Marketplace, see [Introducing AWS Marketplace](#).

The short version of this command is **ec2attvol**.

**Tip**

If you are using the AWS CLI, see [attach-volume](#) instead.

## Syntax

`ec2-attach-volume` *volume\_id* `--instance` *instance\_id* `--device` *device*

## Options

Name	Description
<i>volume_id</i>	The ID of the volume. The volume and instance must be in the same Availability Zone. Type: String Default: None Required: Yes Example: vol-4d826724
<code>-i, --instance</code> <i>instance_id</i>	The ID of the instance. The instance and volume must be in the same Availability Zone. Type: String Default: None Required: Yes Example: -i i-6058a509
<code>-d, --device</code> <i>device</i>	The device name to expose to the instance (for example, <code>/dev/sdh</code> or <code>xvdh</code> ). Type: String Default: None Required: Yes Example: <code>-d /dev/sdf</code> (for Linux/UNIX) or <code>-d xvdf</code> (for Windows)

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ATTACHMENT identifier
- The ID of the volume
- The ID of the instance
- The device name
- The attachment state of the volume (`attaching` | `attached` | `detaching` | `detached`)
- The time stamp when the attachment initiated
- Whether the volume is set to delete on termination (`true` or `false`)

Amazon EC2 command line tools display errors using `stderr`.

## Examples

### Example

This example command attaches the volume with the ID `vol-1a2b3c4d` to the instance with the ID `i-1a2b3c4d` and exposes it as `/dev/sdh`.

```
PROMPT> ec2-attach-volume vol-1a2b3c4d -i i-1a2b3c4d -d /dev/sdh
ATTACHMENT vol-1a2b3c4d i-1a2b3c4d /dev/sdh attaching YYYY-MM-DDTHH:MM:SS
+0000
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.



## Related Action

- [AttachVolume](#)

## Related Commands

- [ec2-create-volume](#) (p. 180)
- [ec2-delete-volume](#) (p. 258)
- [ec2-describe-volumes](#) (p. 470)
- [ec2-detach-volume](#) (p. 521)

# ec2-attach-vpn-gateway

## Description

Attaches a virtual private gateway to a VPC. For more information, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2attvgw**.

### Tip

If you are using the AWS CLI, see [attach-vpn-gateway](#) instead.

## Syntax

```
ec2-attach-vpn-gateway vpn_gateway_id -c vpc_id
```

## Options

Name	Description
<i>vpn_gateway_id</i>	The ID of the virtual private gateway. Type: String Default: None Required: Yes Example: vgw-8db04f81
<i>-c, --vpc vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: -c vpc-1a2b3c4d

## Common Options

Option	Description
<i>--region region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.

Option	Description
	Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>

Option	Description
-?, --help, -h	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The VGWATTACHMENT identifier
- The ID of the attached VPC
- The state of the attachment (attaching, attached, detaching, detached)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command attaches the virtual private gateway with the ID `vgw-8db04f81` to the VPC with the ID `vpc-1a2b3c4d`.

```
PROMPT> ec2-attach-vpn-gateway vgw-8db04f81 -c vpc-1a2b3c4d
VGWATTACHMENT vpc-1a2b3c4d attaching
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)

- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [AttachVpnGateway](#)

## Related Commands

- [ec2-create-vpn-gateway \(p. 205\)](#)
- [ec2-describe-vpn-gateways \(p. 507\)](#)
- [ec2-detach-vpn-gateway \(p. 525\)](#)
- [ec2-create-vpc \(p. 186\)](#)
- [ec2-create-vpn-connection \(p. 198\)](#)

# ec2-authorize

## Description

Adds a rule to a security group.

### Important

EC2-Classic: You can have up to 100 rules per group.

EC2-VPC: You can have up to 50 rules per group (covering both ingress and egress).

Rule changes are propagated to affected instances as quickly as possible. However, a small delay might occur.

A security group is for use with instances either in the EC2-Classic platform or in a specific VPC. EC2-Classic doesn't support rules for egress traffic. For more information, see [Amazon EC2 Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances* and [Security Groups for Your VPC](#) in the *Amazon VPC User Guide*.

EC2-Classic: This command either gives one or more CIDR IP address ranges permission to access a security group for your account, or it gives one or more security groups (called the *source groups*) permission to access a security group for your account. A source group can be for your own AWS account, or another.

EC2-VPC: For ingress rules, this command either gives one or more CIDR IP address ranges permission to access a security group for your VPC, or it gives one or more other security groups (called the *source groups*) permission to access a security group for your VPC. The groups must all be in the same VPC. For egress rules, this command permits instances in the VPC to send traffic to either one or more destination CIDR IP address ranges, or to one or more destination security groups for the same VPC.

The short version of this command is **ec2auth**.

### Tip

If you are using the AWS CLI, see [authorize-security-group-egress](#) and [authorize-security-group-ingress](#) instead.

## Syntax

```
ec2-authorize group [--egress] [-P protocol] (-p port_range | -t
icmp_type_code) [-u source_or_dest_group_owner ...] [-o source_or_dest_group
...] [-s source_or_dest_cidr ...] [-r prefix_list ...]
```

## Options

Name	Description
<i>group</i>	<p>[EC2-Classic, default VPC] The name or ID of the security group.</p> <p>[Nondefault VPC] The ID of the security group. Type: String Default: None Required: Yes Example: webserv</p>
--egress	<p>[EC2-VPC] Designates the rule as an egress rule (controls traffic leaving the VPC). Default: If this option is not specified, the rule applies to ingress traffic for the specified security group.</p>
-P, --protocol <i>protocol</i>	<p>The IP protocol name or number (see <a href="#">Protocol Numbers</a>). Security groups for EC2-Classic can have rules only for TCP, UDP, and ICMP, whereas security groups for EC2-VPC can have rules assigned to any protocol number.</p> <p>When you use <a href="#">ec2-describe-group</a> (p. 320), the protocol value returned is the number. Exception: For TCP, UDP, and ICMP, the value returned is the name (<code>tcp</code>, <code>udp</code>, or <code>icmp</code>). Type: String Valid values for EC2-Classic: <code>tcp</code>   <code>udp</code>   <code>icmp</code> or the corresponding protocol number (6   17   1). Default for EC2-Classic: Defaults to TCP if source CIDR is specified (or implied by default), or all three protocols (TCP, UDP, and ICMP) if source group is specified (to ensure backwards compatibility). Valid values for EC2-VPC: <code>tcp</code>   <code>udp</code>   <code>icmp</code> or any protocol number (see <a href="#">Protocol Numbers</a>). Use <code>all</code> to specify all protocols. Required: Required for EC2-VPC. Example: -P <code>udp</code></p>
-p <i>port_range</i>	<p>For TCP or UDP: The range of ports to allow. Type: String Valid values: A single integer or a range (min-max). You can specify -1 to mean all ports (for example, port range 0-65535). Default: None Required: Required if specifying <code>tcp</code> or <code>udp</code> (or the equivalent number) for the protocol. Example: -p 80-84</p>

Name	Description
<code>-t icmp_type_code</code>	For ICMP: The ICMP type and code. Use the format <code>type:code</code> , where both are integers. You can use <code>-1</code> for the type or code to mean all types or all codes. Type: String Default: None Required: Required if specifying <code>icmp</code> (or the equivalent number) for the protocol. Example: <code>-t -1:-1</code>
<code>-o source_or_dest_group</code>	The source security group (for ingress rules), or destination security group (for egress rules). You can't use this option when using the <code>-s</code> option.  [Nondefault VPC] You must specify the ID of the group (for example, <code>sg-1a2b3c4d</code> ) instead of its name. Type: String Default: None Required: No Example: <code>-o headoffice</code>
<code>-u, source_or_dest_group_owner</code>	[EC2-Classic] The ID of the AWS account that owns the source security group, if it's not the current AWS account. Type: String Default: None Required: No Example: <code>-u 111122223333</code>
<code>-s, --cidr source_or_dest_cidr</code>	The CIDR IP address range. You can't use this option when using the <code>-o</code> option. Type: String Default: <code>0.0.0.0/0</code> Constraints: A valid CIDR IP address range. Required: No Example: <code>-s 205.192.8.45/24</code>
<code>-r, --prefix-list prefix_list</code>	[EC2-VPC] One or more prefix list IDs for an AWS service. Valid for egress rules only. Type: String Required: No Example: <code>-r pl-12345678</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
-T, --security-token <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
--connection-timeout <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
--request-timeout <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
-H, --headers	Includes column headers in the command output.
--show-empty-fields	Shows empty columns as <code>(nil)</code> .
--hide-tags	Omits tags for tagged resources.
--debug	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
-D, --auth-dry-run	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
-v, --verbose	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
-	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
-?, --help, -h	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

A line containing the group information. Some of these fields may be blank.

- The GROUP identifier
- The ID of the security group
- The AWS account ID of the owner of the security group
- The name of the security group
- A description of the security group
- [EC2-VPC] The ID of the VPC the group belongs to

One of each of the following lines for each permission defined by the group:

- The PERMISSION identifier
- The AWS account ID of the owner of the security group
- The name of the security group granting permission
- The type of rule. Currently, only `ALLAWS` rules are supported
- The protocol to allow (for example, `tcp` and `udp`)
- The start of port range
- The end of port range
- FROM for an ingress rule or TO for an egress rule
- The source type (for ingress rules) or destination type (for egress rules)
- The source (for ingress rules) or destination (for egress rules)
- [USER only] The name of the source or destination entity
- [USER only] The ID of the security group
- Whether the rule is ingress rule or an egress rule



Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command grants TCP port 80 access from the 192.0.2.0/24 address range to the security group for EC2-Classic named `webserv`.

```
PROMPT> ec2-authorize webserv -P tcp -p 80 -s 192.0.2.0/24  
GROUP    webserv  
PERMISSION webserv ALLOWS tcp 80 80 FROM CIDR 192.0.2.0/24 ingress
```

### Example 2

This example command grants TCP port 80 access from the source group for EC2-Classic named `OtherAccountGroup` (in AWS account 111122223333) to the security group for EC2-Classic named `webserv`.

```
PROMPT> ec2-authorize webserv -P tcp -p 80 -u 111122223333 -o  
OtherAccountGroup  
GROUP    webserv  
PERMISSION webserv ALLOWS tcp 80 80 FROM USER 111122223333 NAME  
OtherAccountGroup ingress
```

### Example 3

This example command grants TCP port 80 access from the 192.0.2.0/24 address range to the security group for EC2-VPC with the ID `sg-1a2b3c4d`.

```
PROMPT> ec2-authorize sg-1a2b3c4d -P tcp -p 80 -s 192.0.2.0/24  
GROUP    sg-1a2b3c4d  
PERMISSION  ALLOWS tcp 80 80 FROM CIDR 192.0.2.0/24 ingress
```

### Example 4

This example command grants egress access from the security group for EC2-VPC with the ID `sg-1a2b3c4d` to the destination security group with the ID `sg-2a2b3c4d` on TCP port 1433.

```
PROMPT> ec2-authorize --egress sg-1a2b3c4d -P tcp -p 1433 -o sg-2a2b3c4d  
GROUP    sg-1a2b3c4d  
PERMISSION  ALLOWS tcp 1433 1433 TO USER ID sg-2a2b3c4d egress
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Actions

- [AuthorizeSecurityGroupEgress](#)
- [AuthorizeSecurityGroupIngress](#)

## Related Commands

- [ec2-create-group](#) (p. 119)
- [ec2-delete-group](#) (p. 218)
- [ec2-describe-group](#) (p. 320)
- [ec2-revoke](#) (p. 688)

# ec2-bundle-instance

## Description

Bundles an instance store-backed Windows instance.

During bundling, only the root device volume (C:\) is bundled. Data on other instance store volumes is not preserved.

For more information, see [Creating an Instance Store-Backed Windows AMI](#) in the *Amazon EC2 User Guide for Windows Instances*.

If you'd prefer to create an instance store-backed Linux AMI, see [Creating an Instance Store-Backed Linux AMI](#) in the *Amazon EC2 User Guide for Linux Instances*.

The AMI creation process is different for Amazon EBS-backed AMIs. For more information about the differences between Amazon EBS-backed and instance store-backed instances, see [Storage for the Root Device](#) in the *Amazon EC2 User Guide for Linux Instances*. To create an Amazon EBS-backed Windows AMI, use [ec2-create-image](#) (p. 123).

The short version of this command is **ec2bundle**.

### Tip

If you are using the AWS CLI, see [bundle-instance](#) instead.

## Syntax

```
ec2-bundle-instance instance_id -b bucket -p prefix -o access_key_id {-c policy | -s policy_signature | -w owner_secret_access_key} [-x hours] [--location location] [-B]
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance to bundle. Type: String Default: None Required: Yes

Name	Description
	Example: i-5e73d509
-b, --bucket <i>bucket</i>	The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error. Type: String Default: None Required: Yes Example: -b myawsbucket
-p, --prefix <i>prefix</i>	The prefix for the image component names being stored in Amazon S3. Type: String Default: None Required: Yes Example: -p winami
-o, --owner-akid <i>access_key_id</i>	The access key ID of the owner of the Amazon S3 bucket. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a> . Type: String Default: None Required: Yes Example: -o AKIAIOSFODNN7EXAMPLE
-c, --policy <i>policy</i>	A base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf. If you provide this parameter, you must also provide either a policy signature, or your secret access key, so that we can create a policy signature for you (the secret access key is not passed to Amazon EC2). If you do not provide this parameter, the --owner-sak parameter is required, and we generate an upload policy and policy signature for you automatically. For more information about upload policies and how to sign them, see the sections about policy construction and signatures in the <a href="#">Amazon Simple Storage Service Developer Guide</a> . Type: String Default: None Required: Conditional Example: -c upload-policy
-s, --policy-signature <i>policy_signature</i>	The base64-encoded signature for the Amazon S3 upload policy. If you provide --policy but not --policy-signature, then --owner-sak is required, and we use it to automatically sign the policy. Type: String Default: None Required: Conditional Example: -s upload-policy

Name	Description
<code>-w, --owner-sak</code> <code>owner_secret_access_key</code>	<p>The AWS secret access key for the owner of the Amazon S3 bucket specified in the <code>-b</code> parameter. This parameter is required in either of these cases:</p> <ul style="list-style-type: none"> <li>• If you don't provide the <code>--policy</code> parameter</li> <li>• If you provide the <code>--policy</code> parameter, but don't provide the <code>--policy-signature</code> parameter</li> </ul> <p>The command line tools client uses the secret access key to sign a policy for you, but does not send the secret access key to Amazon EC2. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>.</p> <p>Type: String Default: None Required: Conditional Example: <code>-w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-x, --expires hours</code>	<p>The validity period, in hours, for a generated upload policy.</p> <p>Type: String Default: 24 Required: No Example: <code>-x 8</code></p>
<code>--location bucket_location</code>	<p>The location of the destination Amazon S3 bucket.</p> <p>Type: String Default: None Required: No Example: <code>--location my-bucket-location</code></p>
<code>-B, --no-bucket-setup</code>	<p>Indicates that no Amazon S3 bucket should be created if one doesn't already exist, and that no attempt should be made to fix incorrect permissions.</p> <p>Type: Boolean Default: <code>false</code> Required: No Example: <code>-B</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The BUNDLE identifier
- The ID of the bundle
- The ID of the instance
- The bucket name
- The bundle prefix
- The bundle start time
- The bundle update time
- The current state (usually `pending`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command bundles the specified instance.

#### Important

Before you specify a value for your access key ID or secret access key, review and follow the guidance in [Best Practices for Managing AWS Access Keys](#).

```
PROMPT> ec2-bundle-instance i-12345678 -b myawsbucket -p winami -o
AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFicYEXAMPLEKEY
BUNDLE bun-cla540a8 i-12345678 myawsbucket winami 2008-09-15T17:15:20+0000
pending
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [BundleInstance](#)

### Related Commands

- [ec2-cancel-bundle-task](#) (p. 84)
- [ec2-create-image](#) (p. 123)
- [ec2-describe-bundle-tasks](#) (p. 295)

# ec2-cancel-bundle-task

## Description

Cancels a bundling operation for an instance store-backed Windows instance.

The short version of this command is **ec2cbun**.

### Tip

If you are using the AWS CLI, see [cancel-bundle-task](#) instead.

## Syntax

```
ec2-cancel-bundle-task bundle_id
```

## Options

Name	Description
<i>bundle_id</i>	The ID of the bundle task. Type: String Default: None Required: Yes Example: bun-cla432a3

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .



Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The BUNDLE identifier
- The ID of the bundle
- The ID of the instance
- The bucket name
- The cancel status
- The prefix
- The start time
- The update time
- The status (*cancelling*)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command cancels the specified bundle task.

```
PROMPT> ec2-cancel-bundle-task bun-cla322b9  
BUNDLE bun-cla322b9 i-2674d22r myawsbucket winami 2008-09-15T17:15:20+0000  
2008-09-15T17:15:20+0000 cancelling
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CancelBundleTask](#)

### Related Commands

- [ec2-bundle-instance \(p. 79\)](#)
- [ec2-describe-bundle-tasks \(p. 295\)](#)

## ec2-cancel-conversion-task

### Description

Cancels an active conversion task. The task can be the import of an instance or volume. The command removes all artifacts of the conversion, including a partially uploaded volume or instance. If the conversion is complete or is in the process of transferring the final disk image, the command fails and returns an exception.

For more information, see [\(Optional\) Cancel an Upload \(p. 743\)](#).

The short version of this command is **ec2cct**.

#### Tip

If you are using the AWS CLI, see [cancel-conversion-task](#) instead.

### Syntax

```
ec2-cancel-conversion-task task_id
```

## Options

Name	Description
<code>task_id</code>	The ID of the conversion task. Type: String Default: None Required: Yes Example: import-i-fh95npoc

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `CONVERSION-TASK` identifier
- The ID of the conversion task

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command cancels the conversion task with the ID `import-i-fh95npoc`.

```
PROMPT> ec2-cancel-conversion-task import-i-fh95npoc  
CONVERSION-TASK import-i-fh95npoc
```

If the task fails, you receive the following error:

```
Client.DeleteConversionTask Error: Failed to delete conversion task import-i-  
fh95npoc
```

### Example

This command cancels the conversion task with the ID `import-i-fhuoi09c` in the `us-west-2` region.

```
PROMPT> ec2-cancel-conversion-task -region us-west-2 import-i-fhuoi09c  
CONVERSION-TASK import-i-fhuoi09c
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CancelConversionTask](#)

### Related Commands

- [ec2-delete-disk-image \(p. 214\)](#)
- [ec2-describe-conversion-tasks \(p. 304\)](#)
- [ec2-import-instance \(p. 560\)](#)
- [ec2-import-volume \(p. 571\)](#)
- [ec2-resume-import \(p. 684\)](#)

# ec2-cancel-export-task

## Description

Cancels an active export task. The command removes all artifacts of the export, including any partially created Amazon S3 objects. If the export task is complete or is in the process of transferring the final disk image, the command fails and returns an error.

The short version of this command is **ec2cxt**.

### Tip

If you are using the AWS CLI, see [cancel-export-task](#) instead.

## Syntax

`ec2-cancel-export-task` *task\_id*

## Options

Name	Description
<i>task_id</i>	The ID of the export task. This is the ID returned by <code>ec2-create-instance-export-task</code> . Type: String Default: None Required: Yes Example: <code>export-i-fgelt0i7</code>

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.

Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The EXPORT-TASK identifier
- The ID of the export task

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command cancels the export task with the ID `export-i-fgelt0i7`.

```
PROMPT> ec2-cancel-export-task export-i-fgelt0i7  
EXPORT-TASK export-i-fgelt0i7
```

### Example

This example command cancels the export task with the ID `import-i-fhuoi09c` in the `us-west-2` region.

```
PROMPT> ec2-cancel-export-task --region us-west-2 import-i-fhuoi09c  
EXPORT-TASK export-i-fgelt0i7
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CancelExportTask](#)



## Related Commands

- [ec2-create-instance-export-task](#) (p. 129)
- [ec2-describe-export-tasks](#) (p. 316)

# ec2-cancel-reserved-instances-listing

## Description

Cancels the specified Reserved Instance listing in the Reserved Instance Marketplace.

For more information, see [Reserved Instance Marketplace](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Tip

If you are using the AWS CLI, see [cancel-reserved-instances-listing](#) instead.

## Syntax

`ec2-cancel-reserved-instances-listing LISTING`

## Options

Name	Description
<i>LISTING</i>	The ID of the Reserved Instance listing to be canceled. Type: String Required: Yes Default: None

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key.

Option	Description
	Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:

The listing information

- The LISTING identifier
- Reserved instance listing ID
- Reserved instance ID
- The create date
- The update date
- Status
- Status message

One or more rows that contain instance count information

- The INSTANCE-COUNT identifier
- The instance count state
- The instance count

One or more rows that contain price schedule information

- The PRICE-SCHEDULE identifier
- The term
- The price
- Whether or not the schedule is active

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command cancels a Reserved Instance listing in the Reserved Instance Marketplace.

```
PROMPT> ec2-cancel-reserved-instances-listing 095c0e18-c9e6-4692-97e5-653e0example
```

Amazon EC2 returns output similar to the following:

```
PROMPT> ec2-cancel-reserved-instances-listing
Type ReservedInstancesListingId ReservedInstancesId CreateDate UpdateDate
Status StatusMessage
LISTING 095c0e18-c9e6-4692-97e5-653e0example b847fa93-c736-4eae-bca1-
e3147example Tue Aug 28 18:21:07 PDT 2012 Tue Aug 28 18:21:07 PDT 2012
cancelled cancelled
INSTANCE-COUNT available 0
INSTANCE-COUNT sold 0
INSTANCE-COUNT cancelled 1
INSTANCE-COUNT pending 0
PRICE-SCHEDULE 5 $1.2 true
PRICE-SCHEDULE 4 $1.2 false
PRICE-SCHEDULE 3 $1.2 false
PRICE-SCHEDULE 2 $1.2 false
PRICE-SCHEDULE 1 $1.2 true
```

## Related Operations

- [ec2-describe-reserved-instances-listings](#) (p. 404)
- [ec2-create-reserved-instances-listing](#) (p. 155)
- [ec2-describe-reserved-instances](#) (p. 398)

# ec2-cancel-spot-instance-requests

## Description

Cancels one or more Spot Instance requests. Spot Instances are instances that Amazon EC2 launches when the bid price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information, see [Spot Instance Requests](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Important

Canceling a Spot Instance request does not terminate running Spot Instances associated with the request.

The short version of this command is **ec2csir**.

### Tip

If you are using the AWS CLI, see [cancel-spot-instance-requests](#) instead.

## Syntax

```
ec2-cancel-spot-instance-requests request_id [request_id...]
```

## Options

Name	Description
<i>request_id</i>	One or more Spot Instance request IDs. Type: String Default: None

Name	Description
	Required: Yes Example: sir-8456a32b

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the

Option	Description
	required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `SPOTINSTANCEREQUEST` identifier
- The Spot Instance request ID
- The current state

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command cancels a Spot Instance request.

```
PROMPT> ec2-cancel-spot-instance-requests sir-1a2b3c4d sir-2a2b3c4d
SPOTINSTANCEREQUEST sir-1a2b3c4d cancelled
SPOTINSTANCEREQUEST sir-2a2b3c4d cancelled
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CancelSpotInstanceRequests](#)

### Related Commands

- [ec2-describe-spot-instance-requests \(p. 439\)](#)
- [ec2-describe-spot-price-history \(p. 446\)](#)
- [ec2-request-spot-instances \(p. 659\)](#)

## ec2-confirm-product-instance

### Description

Determines whether a product code is associated with an instance. This command can only be run by the owner of the product code. It is useful when a product code owner needs to verify whether another user's instance is eligible for support.

The short version of this command is **ec2cpi**.

#### Tip

If you are using the AWS CLI, see [confirm-product-instance](#) instead.

### Syntax

```
ec2-confirm-product-instance product_code -i instance_id
```

### Options

Name	Description
<i>product_code</i>	The product code. Type: String Default: None Required: Yes

Name	Description
	Example: 774F4FF8
<code>-i instance_id</code>	The instance. Type: String Default: None Required: Yes Example: <code>-i i-10a64379</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.



Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The product code
- The ID of the instance
- A Boolean value indicating whether the product code is attached to the instance
- The account ID of the instance owner (if the product code is attached)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command determines whether the specified product code is associated with the specified instance.

```
PROMPT> ec2-confirm-product-instance 774F4FF8 -i i-10a64379  
774F4FF8 i-10a64379 true 111122223333
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ConfirmProductInstance](#)

### Related Commands

- [ec2-describe-instances \(p. 349\)](#)
- [ec2-run-instances \(p. 693\)](#)

## ec2-copy-image

### Description

Initiates the copy of an AMI from the specified source region to the current region. You can copy the AMI within the same region or from one region to another.

In cross-region copy operations, the AMI is copied from the region specified with the `--source-region` option to the region specified with the `--region` option or the `EC2_URL` environment variable.

For more information, see [Copying an AMI](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2cpimg**.

#### Tip

If you are using the AWS CLI, see [copy-image](#) instead.

#### Tip

The `ec2-copy-image` command does not support encryption operations while copying. If you wish to change the encryption status of an AMI's backing snapshots while copying them, use the AWS CLI [copy-image](#) command instead.

### Syntax

At a command prompt, switch to the destination region, and then type the following:

```
ec2-copy-image -r source_region -s source_ami_id [-n ami_name] [-d ami_description] [-c token]
```

### Options

Name	Description
<code>-r, --source-region <i>source_region</i></code>	The name of the region that contains the AMI to copy. Type: String Default: None Required: Yes Example: us-west-2
<code>-s, --source-ami-id <i>source_ami_id</i></code>	The ID of the AMI to copy. Type: String Default: None Required: Yes Example: ami-4fa54026
<code>-n, --name <i>ami_name</i></code>	The name of the new AMI in the destination region. Type: String Default: Same name as the AMI being copied. Required: No Example: My-Standard-AMI
<code>-d, --description <i>ami_description</i></code>	A description for the new AMI in the destination region. Type: String Default: Same description as the AMI being copied. Constraints: Up to 255 characters.

Name	Description
	Required: No Example: -d "This is the new version of My-Standard-AMI"
-c, --client-token <i>token</i>	Unique, case-sensitive identifier you provide to ensure idempotency of the request. For more information, see <a href="#">How to Ensure Idempotency</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: String Default: None Constraints: Up to 255 characters Required: No Example: 550e8400-e29b-41d4-a716-446655440000

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option. Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the EC2_URL environment variable, or https://ec2.amazonaws.com if EC2_URL isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the AWS_ACCESS_KEY environment variable. If AWS_ACCESS_KEY isn't set, you must specify this option. Example: -O AKIAIOSFODNN7EXAMPLE
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the AWS_SECRET_KEY environment variable. If AWS_SECRET_KEY isn't set, you must specify this option. Example: -W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
-T, --security-token <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the AWS_DELEGATION_TOKEN environment variable (if set). Example: -T AQoDYXdzEJr...<remainder of security token>
--connection-timeout <i>timeout</i>	The connection timeout, in seconds. Example: --connection-timeout 30

Option	Description
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The IMAGE identifier
- The ID of the new image

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command copies the AMI with the ID `ami-4d3c2b1a` in region `us-west-2`, naming the new AMI `My-Standard-AMI`:

```
PROMPT> ec2-copy-image -r us-west-2 -s ami-4d3c2b1a -n "My-Standard-AMI"
-d "This is a copy of ami-4fa54026 --My-standard-AMI-- from us-west-2" -c
550e8400-e29b-41d4-a716-46655440001
IMAGE ami-1a2b3c4d
```

### Example 2

This example command copies the AMI with the ID `ami-4d3c2b1a` in region `us-east-1` to `ap-northeast-1`, naming the new AMI `My-Standard-AMI`:

```
PROMPT> ec2-copy-image -r us-east-1 --region ap-northeast-1 -s ami-4d3c2b1a
-n "My-Standard-AMI" -d "This is a copy of ami-4fa54026 --My-Standard-AMI--
from us-east-1" -c 550e8400-e29b-41d4-a716-46655440000
IMAGE ami-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CopyImage](#)

### Related Commands

- [ec2-describe-images \(p. 329\)](#)
- [ec2-deregister \(p. 279\)](#)

## ec2-copy-snapshot

### Description

Copies a point-in-time snapshot of an Amazon Elastic Block Store (Amazon EBS) volume and stores it in Amazon Simple Storage Service (Amazon S3). You can copy the snapshot within the same region or from one region to another.

In cross-region snapshot copy operations, the snapshot is copied from the region specified with the `--source-region` option to the region specified with the `--region` option or the `EC2_URL` environment variable.

Copies of encrypted EBS snapshots remain encrypted. Copies of unencrypted snapshots remain unencrypted, unless the `--encrypted` flag is specified during the snapshot copy operation. By default, encrypted snapshot copies use the default AWS Key Management Service customer master key (CMK) for EBS; however, you can specify a non-default master key with the `--kms-key-id` option.

For more information, see [Copying an Amazon EBS Snapshot](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2cpsnap`.

#### Tip

If you are using the AWS CLI, see [copy-snapshot](#) instead.

### Syntax

```
ec2-copy-snapshot -r source_region -s source_snapshot_id [-d description] [--encrypted] [--kms-key-id kms_key_id]
```

### Options

Name	Description
<code>-d, --description</code> <i>description</i>	A description for the destination Amazon EBS snapshot. Type: String Default: The source's snapshot description or "[Copied from SOURCE_REGION]" if the source snapshot doesn't have a description. Constraints: Up to 255 characters. Required: No Example: <code>-d "Copy of user data from us-west-1"</code>
<code>-r, --source-region</code> <i>source_region</i>	The name of the region that contains the snapshot to be copied. Type: String Default: None Required: Yes Example: <code>us-west-1</code>
<code>-s, --source-snapshot-id</code> <i>source_snapshot_id</i>	The ID of the Amazon EBS snapshot to copy. Type: String Default: None Required: Yes Example: <code>snap-4d826724</code>

Name	Description
<code>--encrypted</code>	Specifies whether the destination snapshot should be encrypted. There is no way to create an unencrypted snapshot copy from an encrypted snapshot; however, you can encrypt a copy of an unencrypted snapshot with this flag. The default CMK is used unless a non-default AWS KMS CMK is specified with the <code>--kms-key-id</code> option. For more information, see <a href="#">Amazon EBS Encryption</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Default: No Required: No
<code>-k, --kms-key-id kms_key_id</code>	The full ARN of the AWS KMS CMK to use when creating the snapshot copy. This parameter is only required if you want to use a non-default CMK; if this parameter is not specified, the default CMK for EBS is used. The specified key must exist in the region that the snapshot is being copied to. If the <code>--kms-key-id</code> option is specified, the <code>--encrypted</code> option must also be set. Default: The full ARN of the <code>aws/ebs</code> master key for your account in the region specified. Required: No

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>



Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `SNAPSHOT` identifier
- The ID of the new snapshot

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command copies the snapshot in the `us-west-1` region with the ID `snap-1a2b3c4d`.

```
PROMPT> ec2-copy-snapshot -r us-west-1 -s snap-1a2b3c4d --description "Copy  
of user data from us-west-1"  
SNAPSHOT snap-2a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CopySnapshot](#)

### Related Commands

- [ec2-create-snapshot](#) (p. 166)
- [ec2-delete-snapshot](#) (p. 246)
- [ec2-describe-snapshots](#) (p. 429)

## ec2-create-customer-gateway

### Description

Provides information to AWS about your VPN customer gateway device. The customer gateway is the appliance at your end of the VPN connection. (The device on the AWS side of the VPN connection is the virtual private gateway.) You must provide the Internet-routable IP address of the customer gateway's external interface. The IP address must be static and can't be behind a device performing network address translation (NAT).

You must provide the Internet-routable IP address of the customer gateway's external interface. The IP address must be static and can't be behind a device performing NAT.

For devices that use Border Gateway Protocol (BGP), you can also provide the device's BGP Autonomous System Number (ASN). You can use an existing ASN assigned to your network. If you don't have an ASN already, you can use a private ASN (in the 64512 - 65534 range).

#### Note

Amazon EC2 supports all 2-byte ASN numbers in the range of 1 - 65534, with the exception of 7224, which is reserved in the US East (N. Virginia) Region, and 9059, which is reserved in the EU (Ireland) Region.

For more information about ASNs, see the [Wikipedia article](#).

#### Important

You cannot create more than one customer gateway with the same VPN type, IP address, and BGP ASN parameter values. If you run an identical request more than one time, the first request creates the customer gateway, and subsequent requests return information about the existing customer gateway. The subsequent requests do not create new customer gateway resources.

For more information about VPN customer gateways, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addcgw**.

#### Tip

If you are using the AWS CLI, see [create-customer-gateway](#) instead.

### Syntax

```
ec2-create-customer-gateway -t type -i ip_address -b bgp_asn
```

### Options

Name	Description
-t <i>type</i>	The type of VPN connection this customer gateway supports. Type: String Valid values: <code>ipsec.1</code> Default: None Required: Yes Example: <code>-t ipsec.1</code>
-i <i>ip_address</i>	The Internet-routable IP address for the customer gateway's outside interface. The address must be static. Type: String

Name	Description
	<p>Default: None</p> <p>Required: Yes</p> <p>Example: -i 12.1.2.3</p>
-b <i>bgp_asn</i>	<p>For devices that support BGP, the customer gateway's BGP ASN.</p> <p>Type: Integer</p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: -b 65534</p>

## Common Options

Option	Description
--region <i>region</i>	<p>The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option.</p> <p>Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.</p>
-U, --url <i>url</i>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the EC2_URL environment variable, or https://ec2.amazonaws.com if EC2_URL isn't set.</p>
-O, --aws-access-key <i>aws_access_key_id</i>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the AWS_ACCESS_KEY environment variable. If AWS_ACCESS_KEY isn't set, you must specify this option.</p> <p>Example: -O AKIAIOSFODNN7EXAMPLE</p>
-W, --aws-secret-key <i>aws_secret_access_key</i>	<p>Your secret access key.</p> <p>Default: The value of the AWS_SECRET_KEY environment variable. If AWS_SECRET_KEY isn't set, you must specify this option.</p> <p>Example: -W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</p>
-T, --security-token <i>delegation_token</i>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the AWS_DELEGATION_TOKEN environment variable (if set).</p> <p>Example: -T AqoDYXdzEJr...&lt;remainder of security token&gt;</p>
--connection-timeout <i>timeout</i>	<p>The connection timeout, in seconds.</p> <p>Example: --connection-timeout 30</p>
--request-timeout <i>timeout</i>	<p>The request timeout, in seconds.</p> <p>Example: --request-timeout 45</p>
-H, --headers	<p>Includes column headers in the command output.</p>

Option	Description
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `CUSTOMERGATEWAY` identifier
- The customer gateway ID, which uniquely identifies the customer gateway
- The current state of the customer gateway (`pending`, `available`, `deleting`, `deleted`)
- The type of VPN connection the customer gateway supports

- The Internet-routable IP address for the customer gateway's outside interface
- The customer gateway's BGP ASN

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command passes information to AWS about the customer gateway with the IP address 12.1.1.2.3 and ASN 65534.

```
PROMPT> ec2-create-customer-gateway -t ipsec.1 -i 12.1.2.3 -b 65534
CUSTOMERGATEWAY cgw-b4dc3961 pending ipsec.1 12.1.2.3 65534
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateCustomerGateway](#)

### Related Commands

- [ec2-delete-customer-gateway \(p. 208\)](#)
- [ec2-describe-customer-gateways \(p. 307\)](#)

## ec2-create-dhcp-options

### Description

Creates a set of DHCP options for your VPC. After creating the set, you must associate it with the VPC, causing all existing and new instances that you launch in the VPC to use this set of DHCP options. The following table lists the individual DHCP options that you can specify. For more information about the options, go to [RFC 2132](#).

DHCP Option Name	Description
domain-name-servers	The IP addresses of up to four domain name servers, or AmazonProvidedDNS. The default

DHCP Option Name	Description
	DHCP option set specifies AmazonProvidedDNS. If specifying more than one domain name server, separate them with commas.
domain-name	If you're using AmazonProvidedDNS in <code>us-east-1</code> , specify <code>ec2.internal</code> . If you're using AmazonProvidedDNS in another region, specify <code>region.compute.internal</code> (for example, <code>ap-northeast-1.compute.internal</code> ). Otherwise, specify a domain name (for example, <code>MyCompany.com</code> ).
ntp-servers	The IP addresses of up to four Network Time Protocol (NTP) servers.
netbios-name-servers	The IP addresses of up to four NetBIOS name servers.
netbios-node-type	The NetBIOS node type (1, 2, 4, or 8). We recommend that you specify 2 (broadcast and multicast are not currently supported). For more information about these node types, see <a href="#">RFC 2132</a> .

### Important

By default, your VPC has a set of DHCP options that includes only a DNS server that we provide (AmazonProvidedDNS). If you create a set of DHCP options, and your VPC has an Internet gateway, make sure to set the `domain-name-servers` option either to AmazonProvidedDNS or to a domain name server of your choice.

For more information, see [DHCP Options Sets](#) in the *Amazon VPC User Guide*.

The short version of this command is `ec2adddopt`.

### Tip

If you are using the AWS CLI, see [create-dhcp-options](#) instead.

## Syntax

```
ec2-create-dhcp-options name=value[,value...] [ name=value[,value...] ... ]
```

## Options

Name	Description
<code>name=value,value</code>	The DHCP option (including the option's name and its value). You can specify more than one option in the request, and more than one value per option. If you're using the command line tools on a Windows system, you might need to use quotation marks (for example, <code>"name=value,value"</code> ). If you're using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (for example, <code>"`name=value`"</code> ). Type: String Default: None

Name	Description
	Required: Yes Example: "domain-name-servers=10.2.5.1,10.2.5.2"

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the



Option	Description
	required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The DHCP\_OPTIONS identifier
- The ID of the DHCP options set
- The OPTION identifier
- The name of the option and its value

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command creates a set of DHCP options with a domain name `mydomain.com` and two DNS servers (`10.2.5.1` and `10.2.5.2`).

```
PROMPT> ec2-create-dhcp-options "domain-name=mydomain.com" "domain-name-  
servers=10.2.5.1,10.2.5.2"  
DHCP_OPTIONS dopt-7a8b9c2d  
OPTION domain-name mydomain.com  
OPTION domain-name-servers 10.2.5.1,10.2.5.2
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateDhcpOptions](#)

### Related Commands

- [ec2-associate-dhcp-options \(p. 49\)](#)
- [ec2-delete-dhcp-options \(p. 211\)](#)
- [ec2-describe-dhcp-options \(p. 312\)](#)

## ec2-create-group

### Description

Creates a security group.

#### Important

You have a limit on the number of security groups you can create. For more information, see [AWS Service Limits](#).

A security group is for use with instances either in the EC2-Classic platform or in a specific VPC. For more information, see [Amazon EC2 Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances* and [Security Groups for Your VPC](#) in the *Amazon VPC User Guide*.

When you create a security group, you specify a friendly name of your choice. You can have a security group for use in EC2-Classic with the same name as a security group for use in a VPC. However, you can't have two security groups for use in EC2-Classic with the same name or two security groups for use in a VPC with the same name.

You have a default security group for EC2-Classic and a default security group for your VPC. If you don't specify a security group when you launch an instance, the instance is launched into the appropriate default security group. A default security group includes a default rule that grants instances unrestricted network access to each other.

You can add or remove rules from your security groups using the `ec2-authorize` and `ec2-revoke` commands.

The short version of this command is **ec2addgrp**.

**Tip**

If you are using the AWS CLI, see [create-security-group](#) instead.

## Syntax

`ec2-create-group group_name -d description [-c vpc_id]`

## Options

Name	Description
<i>group_name</i>	The name of the security group. Type: String Default: None Constraints: Up to 255 characters in length Constraints for EC2-Classic: ASCII characters Constraints for EC2-VPC: a-z, A-Z, 0-9, spaces, and <code>._-:/()#,@[]+=&amp;:{}!\$*</code> Required: Yes Example: webserv
<code>-d, --description</code> <i>description</i>	A description for the security group. This is informational only. Type: String Default: None Constraints: Up to 255 characters in length Constraints for EC2-Classic: ASCII characters Constraints for EC2-VPC: a-z, A-Z, 0-9, spaces, and <code>._-:/()#,@[]+=&amp;:{}!\$*</code> Required: Yes Example: <code>-d "Web Servers"</code>
<code>-c, --vpc</code> <i>vpc_id</i>	[EC2-VPC] The ID of the VPC. Type: String Default: None Required: Conditional Condition: Required for EC2-VPC Example: <code>-c vpc-1a2b3c4d</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The GROUP identifier
- The ID of the new security group
- The name of the security group
- The description of the security group

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command creates a security group named `websrv` for EC2-Classic.

```
PROMPT> ec2-create-group webserv -d "Web Servers"  
GROUP sg-1a2b3c4d webserv Web Servers
```

## Example 2

This example command creates a security group named `WebServerSG` for the specified VPC.

```
PROMPT> ec2-create-group WebServerSG -d "Web Servers" -c vpc-3325caf2  
GROUP sg-0a42d66a WebServerSG Web Servers
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateSecurityGroup](#)

### Related Commands

- [ec2-authorize \(p. 73\)](#)
- [ec2-delete-group \(p. 218\)](#)
- [ec2-describe-group \(p. 320\)](#)
- [ec2-revoke \(p. 688\)](#)
- [ec2-run-instances \(p. 693\)](#)

## ec2-create-image

### Description

Creates an Amazon EBS-backed AMI from an Amazon EBS-backed instance that is either running or stopped.

If you customized your instance with instance store volumes or Amazon EBS volumes in addition to the root device volume, the new AMI contains block device mapping information for those volumes. When you launch an instance from this new AMI, the instance automatically launches with those additional volumes.

For more information, see the following topics:

- [Creating an Amazon EBS-Backed Linux AMI \(Amazon EC2 User Guide for Linux Instances\)](#)
- [Creating an Amazon EBS-Backed Windows AMI \(Amazon EC2 User Guide for Windows Instances\)](#)

The AMI creation process is different for instance store-backed AMIs. For more information about the differences between Amazon EBS-backed and instance store-backed instances, see [Storage for the Root Device](#) in the *Amazon EC2 User Guide for Linux Instances*. To create an instance store-backed AMI, use `ec2-bundle-vol` (Linux) or `ec2-bundle-instance` (p. 79) (Windows).

The short version of this command is **ec2cim**.

**Tip**

If you are using the AWS CLI, see [create-image](#) instead.

## Syntax

```
ec2-create-image instance_id --name name [--description description] [--no-reboot] [-b, --blockdevice-mapping mapping]
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Type: String Default: None Required: Yes Example: i-10a64379
-n, --name <i>name</i>	A name for the new AMI. Type: String Default: None Constraints: 3-128 alphanumeric characters, parentheses (), square brackets [], periods (.), slashes (/), dashes (-), single quotes ('), at-signs (@), or underscores(_). Allows spaces if the name is enclosed in quotation marks. Required: Yes Example: -n "Standard Web Server"
-d, --description <i>description</i>	A description for the new AMI. Type: String Default: None Constraints: Up to 255 ASCII characters Required: No Example: -d Fedora_v11
--no-reboot	When this option is absent, Amazon EC2 attempts to cleanly shut down the instance before image creation and reboots the instance. When this option is used, Amazon EC2 doesn't shut down the instance before creating the image; therefore, file system integrity on the created image can't be guaranteed. Type: Boolean Default: <i>false</i> Required: No Example: --no-reboot
-b, --block-device-mapping <i>mapping</i>	An entry for the block device mapping for the instance. You can specify multiple --block-device-mapping

Name	Description
	<p>options in one call. For more information, see <a href="#">Block Device Mapping</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Each entry is passed in the form <code>&lt;devicename&gt;=&lt;blockdevice&gt;</code>. The <i>devicename</i> is the device name of the physical device on the instance to map, and <i>blockdevice</i> can be one of the following values:</p> <ul style="list-style-type: none"> <li>• <code>none</code> – Suppresses an existing mapping of the device from the AMI used to launch the instance. For example: <code>"/dev/sdc=none"</code>.</li> <li>• <code>ephemeral<i>n</i></code> – An instance store volume to be mapped to the device. Instance store volumes are numbered starting from 0. An instance type with 2 available instance store volumes can specify mappings for <code>ephemeral0</code> and <code>ephemeral1</code>. For example: <code>"/dev/sdc=ephemeral0"</code>.</li> <li>• <code>[snapshot-id]:[volume-size]:[delete-on-termination]:[volume-type[:iops]][:encrypted]</code> – An Amazon EBS volume to map to the device. <ul style="list-style-type: none"> <li><code>[snapshot-id]</code> To create a volume from a snapshot, specify the snapshot ID.</li> <li><code>[volume-size]</code> To create an empty Amazon EBS volume, omit the snapshot ID and specify a volume size instead. For example: <code>"/dev/sdh=:20"</code>.</li> <li><code>[delete-on-termination]</code> To prevent deletion on instance termination, specify <code>false</code>. The default for the root volume is <code>true</code> and the default for other volumes is <code>false</code>. For more information, see <a href="#">Preserving Amazon EBS Volumes on Instance Termination</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[volume-type]</code> The default volume type is <code>standard</code>. To create a General Purpose SSD volume, specify <code>gp2</code>. To create a Provisioned IOPS SSD volume, specify <code>io1</code>. If the volume type is <code>io1</code>, you must also specify the number of IOPS that the volume should support. For more information, see <a href="#">Amazon EBS Volume Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[iops]</code> The number of provisioned IOPS that the volume supports (this option is only valid with <code>io1</code> volume types).</li> <li><code>[encrypted]</code> To encrypt the volume, specify <code>true</code>. Volumes created from encrypted snapshots are automatically encrypted. An encrypted Amazon EBS volume must be attached to an instance that supports Amazon EBS encryption. If your AMI uses an encrypted</li> </ul> </li> </ul>



Name	Description
	<p>volume, you must launch it using a supported instance type. For more information, see <a href="#">Amazon EBS Encryption</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>-b "/dev/sdc=snap-7eb96d16:100:false:io1:500"</code></p> <p><b>Note</b> On Windows, the <i>mapping</i> argument must be enclosed in double quotes, as shown in the example.</p> <p><b>Note</b> For M3 instances, you must specify instance store volumes in the block device mapping for the instance. When you launch an M3 instance, we ignore any instance store volumes specified in the block device mapping for the AMI.</p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The IMAGE identifier
- The ID of the new AMI

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates an AMI from the specified instance.

```
PROMPT> ec2-create-image i-10a64379 --name "Standard Web Server" --
description "Standard web server AMI"
IMAGE ami-4fa54026
```

### Example

This example command creates an AMI with three volumes. The first volume is based on an Amazon EBS snapshot. The second volume is an empty 100 GiB Amazon EBS volume. The third volume is an instance store volume, `ephemeral0`.

```
PROMPT> ec2-create-image i-10a64379 --name "Standard Web Server" --
description "Standard web server AMI" -b "/dev/sdf=snap-2a3b4c5d" -b "/dev/
sdg=:100" -b "/dev/sdc=ephemeral0"
IMAGE ami-4fa54026
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [CreateImage](#)

## Related Commands

- [ec2-deregister](#) (p. 279)
- [ec2-describe-images](#) (p. 329)
- [ec2-run-instances](#) (p. 693)

# ec2-create-instance-export-task

## Description

Exports a running or stopped instance to an Amazon S3 bucket. You can only export an instance that you previously imported into Amazon EC2. For information about the supported operating systems, image formats, and known limitations for the types of instances you can export, see [Exporting EC2 Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addixt**.

### Tip

If you are using the AWS CLI, see [create-instance-export-task](#) instead.

## Syntax

```
ec2-create-instance-export-task instance_id -e target_environment -f disk_image_format [-c container_format] -b S3_bucket [-p S3_prefix] [-d description]
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Required: Yes
-e, --target-environment <i>target_environment</i>	The target environment. VMware supports VMware 4 and 5. Citrix supports Xen 6. Microsoft supports Microsoft Hyper-V. Type: String Valid values: VMware   Citrix   Microsoft Required: Yes
-f, --disk-image-format <i>disk_image_format</i>	The disk image file format used to represent the exported disk. Type: String Valid values: vmdk   vhd Default: If -e = vmware, then -f = vmdk; otherwise vhd Required: No

Name	Description
<code>-c, --container-format <i>container_format</i></code>	The container format used to combine disk images with metadata (such as OVF). If absent, only the disk image will be exported. Type: String Valid values: OVA Default: If <code>-e</code> = VMware, then <code>-c</code> = OVA; otherwise empty Required: No
<code>-b, --bucket <i>S3_bucket</i></code>	The name of the destination Amazon S3 bucket where the file will be exported. The destination bucket must exist and grant WRITE and READ_ACL permissions to the AWS account <code>vm-import-export@amazon.com</code> . Type: String Required: Yes
<code>-p, --prefix <i>S3_prefix</i></code>	The prefix for the Amazon S3 key (object name) used for the exported file. The maximum length is 1000 bytes of UTF-8 character encoding. The final key is composed from this prefix (if specified), the export task ID, and other relevant parameters. Type: String Required: No Example: <code>my-export-, incoming/vm-export/</code>
<code>-d, --description <i>description</i></code>	A description for the conversion task or the resource being exported. The maximum length is 255 bytes. Type: String Required: No

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>

Option	Description
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The EXPORTTASK identifier
- The ID of the export task
- The state of the conversion task (`active` | `cancelling` | `cancelled` | `completed`)
- The instance being exported
- The target virtualization environment (`vmware` | `citrix`)
- The format for the exported image (`vmrk` | `vhd`)
- The Amazon S3 bucket for the destination image.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a task to export an instance.

```
PROMPT> ec2-create-instance-export-task i-38e485d8 -e vmware -f vmrk -c ova -
b myexportbucket
EXPORTTASK      export-i-fgelt0i7      active      i-38e485d8      vmware      vmrk
myexportbucket  export-i-fgelt0i7.vmrk
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [CreateInstanceExportTask](#)

## Related Commands

- [ec2-cancel-export-task](#) (p. 91)
- [ec2-describe-export-tasks](#) (p. 316)

# ec2-create-internet-gateway

## Description

Creates an Internet gateway for use with a VPC. After creating the Internet gateway, you attach it to a VPC using `ec2-attach-internet-gateway`.

For more information about your VPC and Internet gateway, see the [Amazon VPC User Guide](#).

The short version of this command is **ec2addigw**.

### Tip

If you are using the AWS CLI, see [create-internet-gateway](#) instead.

## Syntax

**ec2-create-internet-gateway**

## Options

This command has no options.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key.



Option	Description
	<p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	<p>Reads arguments from standard input. This is useful when piping the output from one command to the input of another.</p> <p>Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code></p>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `INTERNETGATEWAY` identifier
- The ID of the Internet gateway

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command creates an Internet gateway.

```
PROMPT> ec2-create-internet-gateway  
INTERNETGATEWAY igw-c0a643a9
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateInternetGateway](#)

### Related Commands

- [ec2-attach-internet-gateway \(p. 60\)](#)
- [ec2-delete-internet-gateway \(p. 221\)](#)

- [ec2-describe-internet-gateways](#) (p. 362)
- [ec2-detach-internet-gateway](#) (p. 515)

## ec2-create-keypair

### Description

Creates a 2048-bit RSA key pair with the specified name. Amazon EC2 stores the public key and displays the private key for you to save to a file. The private key is returned as an unencrypted PEM encoded PKCS#8 private key. If a key with the specified name already exists, Amazon EC2 returns an error.

You can have up to five thousand key pairs per region.

#### Tip

The key pair returned to you is available only in the region in which you create it. To create a key pair that is available in all regions, use [ec2-import-keypair](#) (p. 567).

For more information, see [Key Pairs](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addkey**.

#### Tip

If you are using the AWS CLI, see [create-key-pair](#) instead.

### Syntax

```
ec2-create-keypair key
```

### Options

Name	Description
<i>key</i>	A unique name for the key pair. Type: String Default: None Constraints: Up to 255 ASCII characters. Required: Yes Example: my-key-pair

### Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The KEYPAIR identifier
- The name of the key pair
- The private key fingerprint
- The private key contents

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a key pair named my-key-pair.

```
PROMPT> ec2-create-keypair my-key-pair
KEYPAIR my-key-pair
1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:2d:7d:b8:ca:9f:f5:f1:6f
---- BEGIN RSA PRIVATE KEY ----
MIICiTCcAafICCCQD6m7oRw0uXOjANBgkqhkiG9w0BAQUFADCBiDELMAkGAlUEBhMC
VVMxCzAJBgNVBAGTAldBMRAdDgYDVQQHEwdTZWF0dGx1MQ8wDQYDVQQKEwZBbWF6
b24xFDASBgNVBASTC0lBTSBDb25zb2x1MRIwEAYDVQQDEw1UZXR0Q21sYWMxH3Ad
BgkqhkiG9w0BCQEWEG5vb25lQGFTYXpvbi5jb20wHhcNMTEwNDI1MjA0NTIxWhcN
MTIwNDI1MjA0NTIxWjCBiDELMAkGAlUEBhMCVVMxCzAJBgNVBAGTAldBMRAdDgYD
VQQHEwdTZWF0dGx1MQ8wDQYDVQQKEwZBbWF6b24xFDASBgNVBASTC0lBTSBDb25z
b2x1MRIwEAYDVQQDEw1UZXR0Q21sYWMxH3AdBgkqhkiG9w0BCQEWEG5vb25lQGFT
YXpvbi5jb20wG9wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMaK0dn+a4GmWIWJ
21uUSfwfEvySWtC2XADZ4nB+BLyGVIk60CpiwsZ3G93vUEIO3IyNoH/f0wYK8m9T
rDHudUZg3qX4waLG5M43q7Wgc/MbQITxOUSQv7c7ugFFDzQGBzZswY6786m86gpE
Ibb3OhjZncvQAaRHhd1QWIMm2nrAgMBAAEwDQYJKoZIhvcNAQEFBQADgYEAtCu4
nUhVVxYUntned9+h8Mg9q6q+auNKyExzyLwaxlAoo7TJHidbtS4J5iNmZgXL0Fkb
FFBjvSfpJI1J00zhhNYS5f6GuoEDmFJl0ZxBHjJnyp378OD8uTs7fLvJx79LjSTb
NYiytVbZPQUQ5Yaxu2jXnimvw3rrszlaEXAMPLE
```

```
-----END RSA PRIVATE KEY-----
```

Create a file named `my-key-pair.pem` and paste the entire key from the response into this file, including the following lines.

```
"----- BEGIN RSA PRIVATE KEY -----"  
"-----END RSA PRIVATE KEY-----"
```

Confirm that the file contents are similar to the following and save the file to a local directory.

```
----- BEGIN RSA PRIVATE KEY -----  
MIICiTCcAfICcQD6m7oRw0uXOjANBgkqhkiG9w0BAQUFADCBiDELMAkGA1UEBhMC  
VVMxCzAJBgNVBAGTAldBMRAdG9YDVQHEwdTZWF0dGx1MQ8wDQYDVQKQEWZBbWF6  
b24xFDASBgNVBAStC01BTSBDb25zb2x1MRIwEAYDVQQDEw1UZXR0Q21sYWMxHAd  
BgkqhkiG9w0BCQEWEG5vb25lQGftYXpvbi5jb20wHhcNMTEwNDI1MjA0NTIxWhcN  
MTIwNDI0MjA0NTIxWjCBiDELMAkGA1UEBhMCVVMxCzAJBgNVBAGTAldBMRAdG9YD  
VQHEwdTZWF0dGx1MQ8wDQYDVQKQEWZBbWF6b24xFDASBgNVBAStC01BTSBDb25z  
b2x1MRIwEAYDVQQDEw1UZXR0Q21sYWMxHAdBgkqhkiG9w0BCQEWEG5vb25lQGft  
YXpvbi5jb20wZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMaK0dn+a4GmWIWJ  
21uUSfwfEvySWtC2XADZ4nB+BLyGVIk60CpiwsZ3G93vUEIO3IyNoH/f0wYK8m9T  
rDHudUZg3qX4waLG5M43q7Wgc/MbQITxOUSQv7c7ugFFDzQGBzZswY6786m86gpE  
Ibb3OhjZnzcVQAaRHhdlQWIMm2nrAgMBAAEwDQYJKoZIhvcNAQEFBQADgYEAtCu4  
nUhVVxYUntneD9+h8Mg9q6q+auNKyExzyLwaxlAoo7TJHidbtS4J5iNmZgXL0Fkb  
FFBjvSfpJlJ00zbbNYS5f6GuoEDmFJl0ZxBHjJnyp378OD8uTs7fLvJx79LjSTb  
NYiytVbZPQUQ5Yaxu2jXnimvw3rrszlaEXAMPLE  
-----END RSA PRIVATE KEY-----
```

Keep this file in a safe place; it is required to decrypt login information when you connect to an instance that you launched using this key pair.

If you're using an SSH client on a Linux computer to connect to your instance, use the following command to set the permissions of your private key file so that only you can read it.

```
$ chmod 400 my-key-pair.pem
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateKeyPair](#)

### Related Commands

- [ec2-delete-keypair \(p. 224\)](#)

- [ec2-describe-keypairs](#) (p. 367)
- [ec2-run-instances](#) (p. 693)

## ec2-create-network-acl

### Description

Creates a network ACL in a VPC. Network ACLs provide an optional layer of security (in addition to security groups) for the instances in your VPC.

For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addnacl**.

#### Tip

If you are using the AWS CLI, see [create-network-acl](#) instead.

### Syntax

```
ec2-create-network-acl vpc_id
```

### Options

Name	Description
<i>vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: vpc-9ea045f7

### Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key.

Option	Description
	Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.



Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The NETWORKACL identifier
- The ACL ID
- The ID of the VPC for the network ACL
- The default ENTRY elements

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a network ACL in the specified VPC. The response includes a default entry for egress, and another for ingress, each with a very high rule number (32767). These are the last entries that we process to decide whether traffic is allowed into our out of an associated subnet. If the traffic doesn't match any rules with a lower rule number, then these default entries ultimately deny the traffic. The `-1` means all protocols and ports.

```
PROMPT> ec2-create-network-acl vpc-11ad4878
NETWORKACL acl-5fb85d36 vpc-11ad4878
ENTRY egress 32767 deny 0.0.0.0/0 all
ENTRY ingress 32767 deny 0.0.0.0/0 all
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [CreateNetworkAcl](#)

## Related Commands

- [ec2-delete-network-acl](#) (p. 227)
- [ec2-describe-network-acls](#) (p. 370)
- [ec2-replace-network-acl-association](#) (p. 640)

# ec2-create-network-acl-entry

## Description

Creates an entry (a rule) in a network ACL with the specified rule number. Each network ACL has a set of numbered ingress rules and a separate set of numbered egress rules. When determining whether a packet should be allowed in or out of a subnet associated with the ACL, we process the entries in the ACL according to the rule numbers, in ascending order. Each network ACL has a set of ingress rules and a separate set of egress rules.

### Tip

We recommend that you leave room between the rule numbers (for example, 100, 110, 120, ...), and not number them one right after the other (for example, 101, 102, 103, ...). This makes it easier to add a rule between existing ones without having to renumber the rules.

After you add an entry, you can't modify it; you must either replace it or create an entry and delete the old one.

For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addnae**.

### Tip

If you are using the AWS CLI, see [create-network-acl-entry](#) instead.

## Syntax

```
ec2-create-network-acl-entry acl_id -n rule_number [--egress] -P protocol -r cidr [-p port_range] [-t icmp_type_code] { --allow | --deny }
```

## Options

Name	Description
<i>acl_id</i>	The ID of the ACL for the entry. Type: String Default: None Required: Yes Example: acl-5fb85d36
<code>-n, --rule-number</code> <i>rule_number</i>	The rule number for the entry (for example, 100). ACL entries are processed in ascending order by rule number. Type: Number

Name	Description
	<p>Default: None</p> <p>Constraints: Positive integer from 1 to 32766. The range 32767 to 65535 is reserved for internal use.</p> <p>Required: Yes</p> <p>Example: -n 100</p>
--egress	<p>Indicates that the rule be applied to traffic leaving the subnet.</p> <p>Default: If not specified, the rule applies to ingress traffic into the subnet.</p> <p>Required: No</p>
-P, --protocol <i>protocol</i>	<p>The IP protocol. You can specify <code>all</code> or <code>-1</code> to mean all protocols.</p> <p>Type: String</p> <p>Valid values: <code>all</code>   <code>-1</code>   <code>tcp</code>   <code>udp</code>   <code>icmp</code> or any protocol number (for a list, see <a href="#">Protocol Numbers</a>).</p> <p>Required: Yes</p> <p>Example: -P 6</p>
-r, --cidr <i>cidr</i>	<p>The CIDR range to allow or deny, in CIDR notation.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: -r 172.16.0.0/24</p>
-p, --port-range <i>port_range</i>	<p>For TCP or UDP: The range of ports to allow.</p> <p>Type: String</p> <p>Valid values: A single integer or a range (min-max). You can specify <code>-1</code> to mean all ports (for example, port range 0-65535).</p> <p>Default: None</p> <p>Required: Conditional</p> <p>Condition: Required if specifying <code>tcp</code> or <code>udp</code> (or the equivalent number) for the protocol.</p> <p>Example: -p 80-84</p>
-t, --icmp-type-code <i>icmp_type_code</i>	<p>For ICMP: The ICMP type and code using format <code>type:code</code>, where both are integers. You can use <code>-1</code> for the type or code to mean all types or all codes.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Conditional</p> <p>Condition: Required if specifying <code>icmp</code> (or the equivalent number) for the protocol.</p> <p>Example: -t -1:-1</p>
--allow	<p>Specifies that any traffic matching the rule is allowed.</p> <p>Required: Conditional</p> <p>Condition: You must specify either <code>--allow</code> or <code>--deny</code>, but not both options.</p>

Name	Description
<code>--deny</code>	Specifies that any traffic matching the rule is denied. Required: Conditional Condition: You must specify either <code>--allow</code> or <code>--deny</code> , but not both.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ENTRY identifier
- The traffic allowed or denied (`ingress` | `egress`)
- The rule number
- Indicates what to do with the traffic (`allow` | `deny`)
- The CIDR range to allow or deny
- The protocol
- The first port in the range
- The last port in the range

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates an entry with rule number 100 in the network ACL with the ID `acl-2cb85d45`. The rule allows ingress traffic from anywhere (`0.0.0.0/0`) on UDP port 53 into any associated subnet.

```
PROMPT> ec2-create-network-acl-entry acl-2cb85d45 -n 100 -r 0.0.0.0/0 -P udp
-p 53 --allow
ENTRY    ingress 100      allow  0.0.0.0/0      udp      53
      53
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateNetworkAclEntry](#)

### Related Commands

- [ec2-delete-network-acl-entry \(p. 230\)](#)
- [ec2-describe-network-acls \(p. 370\)](#)
- [ec2-replace-network-acl-entry \(p. 643\)](#)

## ec2-create-network-interface

### Description

Creates a network interface in the specified subnet.

For more information, see [Elastic Network Interfaces](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2addnic`.

#### Tip

If you are using the AWS CLI, see [create-network-interface](#) instead.

## Syntax

```
ec2-create-network-interface -d, --description description [--private-ip-address ip_address] [--secondary-private-ip-address ip_address] [--secondary-private-ip-address-count address_count] [-g, --group security_group_id]
```

## Options

Name	Description
<code>-d, --description <i>description</i></code>	A description for the network interface. Type: String Default: None Required: No Example: <code>-d "My ENI"</code>
<code>--private-ip-address <i>ip_address</i></code>	The primary private IP address of the network interface. If you don't specify an IP address, Amazon EC2 selects one from the subnet range. Type: String Default: None Required: No Example: <code>--private-ip-address 10.0.2.17</code>
<code>--secondary-private-ip-address <i>ip_address</i></code>	The IP address to be assigned as a secondary private IP address to the network interface. You can use this option multiple times to assign multiple secondary IP addresses to the network interface.  If you don't specify an IP address, Amazon EC2 selects one from the subnet range.  You can't specify this parameter when also specifying <code>--secondary-private-ip-address-count</code> . Type: String Default: None Required: No Example: <code>--secondary-private-ip-address 10.0.2.18 - secondary-private-ip-address 10.0.2.28</code>
<code>--secondary-private-ip-address-count <i>address_count</i></code>	The number of secondary IP addresses to assign to the network interface. For more information, see <a href="#">Private IP Addresses Per ENI Per Instance Type</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> .  You can't specify this parameter when you also specify <code>--secondary-private-ip-address</code> . Type: Integer Default: None Required: No Example: <code>--secondary-private-ip-address-count 2</code>
<code>-g, --group <i>security_group_id</i></code>	A security group to add to the network interface. You can use this option multiple times to add multiple groups. Type: String

Name	Description
	<p>Default: None. If no security group is specified, the interface will become a member of the default security group.</p> <p>Required: No</p> <p>Example: -g sg-bba1bcd7 -g sg-6d495601</p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.



Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the ENI ID for the network interface that was created, along with the subnet ID, VPC ID, Availability Zone, private IP addresses, and security group membership.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command creates a network interface in the specified subnet.

```
PROMPT> ec2-create-network-interface -d "My ENI" -g sg-bbalbcd7 --private-ip-address 10.0.2.17 subnet-fd04ff94
NETWORKINTERFACE  eni-3b9f6552  My ENI subnet-fd04ff94 vpc-e604ff8f  us-
east-1b  089818748305  false  pending 02:1a:80:41:52:9c  10.0.2.17  true

GROUP  sg-bbalbcd7  default
PRIVATEIPADDRESS 10.0.2.17
```

## Example 2

This example command creates a network interface address with a primary private IP address of 10.0.0.117, and two secondary private IP addresses: one secondary private IP address of 10.0.0.118 and another secondary private IP address that is selected by Amazon EC2.

```
PROMPT> ec2-create-network-interface -d "My ENI" -g sg-blb508d8 --private-ip-address 10.0.0.117 --secondary-private-ip-address 10.0.0.118 subnet-blb508d8
NETWORKINTERFACE  eni-f907b890  My ENI subnet-blb508d8 vpc-a2b508cb  ap-
southeast-1a 013274050172  false  pending 02:75:42:60:6c:05
10.0.0.117  true
GROUP  sg-82b3alee  default
PRIVATEIPADDRESS 10.0.0.117
PRIVATEIPADDRESS 10.0.0.118
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateNetworkInterface](#)

### Related Commands

- [ec2-attach-network-interface \(p. 63\)](#)
- [ec2-delete-network-interface \(p. 234\)](#)
- [ec2-describe-network-interface-attribute \(p. 376\)](#)
- [ec2-describe-network-interfaces \(p. 379\)](#)
- [ec2-detach-network-interface \(p. 518\)](#)
- [ec2-modify-network-interface-attribute \(p. 591\)](#)
- [ec2-reset-network-interface-attribute \(p. 677\)](#)

## ec2-create-placement-group

### Description

Creates a placement group that you launch cluster instances into. You must give the group a name that's unique within the scope of your account.

For more information about placement groups and cluster instances, see [Cluster Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addpgrp**.

#### Tip

If you are using the AWS CLI, see [create-placement-group](#) instead.

### Syntax

```
ec2-create-placement-group placement_group -s strategy
```

### Options

Name	Description
<i>placement_group</i>	A name for the placement group. Type: String Default: None Required: Yes Constraints: Up to 255 ASCII characters. Example: XYZ-cluster
-s <i>strategy</i>	The placement strategy. Type: String Valid values: <code>cluster</code> Default: <code>cluster</code> Required: Yes Example: -s cluster

### Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `PLACEMENTGROUP` identifier
- The placement group name
- The placement strategy
- The state of the placement group

## Examples

### Example

This example command creates a placement group named `XYZ-cluster`.

```
PROMPT> ec2-create-placement-group XYZ-cluster -s cluster
PLACEMENTGROUP XYZ-cluster cluster available
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreatePlacementGroup](#)

## Related Commands

- [ec2-delete-placement-group](#) (p. 237)
- [ec2-describe-placement-groups](#) (p. 387)

# ec2-create-reserved-instances-listing

## Description

Creates a listing for Amazon EC2 Reserved Instances that will be sold in the Reserved Instance Marketplace. You can submit one Reserved Instance listing at a time.

The Reserved Instance Marketplace matches sellers who want to resell Reserved Instance capacity that they no longer need with buyers who want to purchase additional capacity. Reserved Instances bought from third-party sellers through the Reserved Instance Marketplace work like any other Reserved Instances.

If you want to sell your Reserved Instances, you must first register as a Seller in the Reserved Instance Marketplace. After completing the registration process, you can create a Reserved Instance Marketplace listing of some or all of your Reserved Instances, and specify the upfront price you want to receive for them. Your Reserved Instance listings then become available for purchase.

For more information, see [Reserved Instance Marketplace](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Tip

If you are using the AWS CLI, see [create-reserved-instances-listing](#) instead.

## Syntax

```
ec2-create-reserved-instances-listing --reserved-instance RESERVED-  
INSTANCE --instance-count INSTANCE-COUNT [--client-token TOKEN] MONTH:PRICE  
[MONTH:PRICE [...]]
```

## Options

Name	Description
<code>--reserved-instance <i>RESERVED-INSTANCE</i></code>	The ID of the active Reserved Instance. Type: String Default: None Required: Yes
<code>--instance-count <i>INSTANCE-COUNT</i></code>	The number of instances that are a part of a Reserved Instance account that will be listed in the Reserved Instance Marketplace. This number should be less or equal to the instance count associated with the Reserved Instance ID specified in this command. Type: Integer Default: Total number of Reserved Instances active for the account Required: Yes
<code><i>MONTH:PRICE</i></code>	The price and schedule entry, using the format MONTH:PRICE, where MONTH is the number of months

Name	Description
	and PRICE is the numerical part of the price you want for the specified months of the term. For example, 14:12.34 means you want to sell 14 months at the price of \$12.34. Type: String Default: None Required: Yes
<code>--client-token</code> <i>TOKEN</i>	Unique, case-sensitive identifier you provide to ensure idempotency of your listings. This helps avoid duplicate listings. For more information, see <a href="#">Ensuring Idempotency</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: String Default: None Required: No

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>

Option	Description
<code>--request-timeout</code> <code>timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:



The listing information

- The LISTING identifier
- Reserved instance listing ID
- Reserved instance ID
- The create date
- The update date
- Status
- Status message

One or more rows that contain instance count information

- The INSTANCE-COUNT identifier
- The instance count state
- The instance count

One or more rows that contain price schedule information

- The PRICE-SCHEDULE identifier
- The term
- The price
- Whether or not the schedule is active

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a Reserved Instance Marketplace listing from the existing Reserved Instance `b847fa93-c736-4eae-bca1-e3147example`, which has 5 months remaining in its term. In this example, we set the upfront price at \$1.20.

The command looks like this:

```
PROMPT> ec2-create-reserved-instances-listing --reserved-instance b847fa93-  
c736-4eae-bca1-3147example --instance-count 1 05:01.20
```

Amazon EC2 returns output similar to the following:

```
Type ReservedInstancesListingId ReservedInstancesId CreateDate UpdateDate  
Status StatusMessage  
LISTING 095c0e18-c9e6-4692-97e5-653e0example b847fa93-c736-4eae-bca1-  
e3147example Tue Aug 28 18:21:07 PDT 2012 Tue Aug 28 18:21:07 PDT 2012 active  
active  
INSTANCE-COUNT available 1  
INSTANCE-COUNT sold 0  
INSTANCE-COUNT cancelled 0  
INSTANCE-COUNT pending 0  
PRICE-SCHEDULE 5 $1.2 true  
PRICE-SCHEDULE 4 $1.2 false
```

```
PRICE-SCHEDULE 3 $1.2 false  
PRICE-SCHEDULE 2 $1.2 false  
PRICE-SCHEDULE 1 $1.2 true
```

## Related Operations

- [ec2-cancel-reserved-instances-listing](#) (p. 94)
- [ec2-describe-reserved-instances-listings](#) (p. 404)

## ec2-create-route

### Description

Creates a route in a route table within a VPC. The route's target can be an Internet gateway or virtual private gateway attached to the VPC, a VPC peering connection, or a NAT instance in the VPC.

When determining how to route traffic, we use the route with the most specific match. For example, let's say the traffic is destined for 192.0.2.3, and the route table includes the following two routes:

- 192.0.2.0/24 (goes to some target A)
- 192.0.2.0/28 (goes to some target B)

Both routes apply to the traffic destined for 192.0.2.3. However, the second route in the list covers a smaller number of IP addresses and is therefore more specific, so we use that route to determine where to target the traffic.

For more information, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addr**.

#### Tip

If you are using the AWS CLI, see [create-route](#) instead.

### Syntax

```
ec2-create-route route_table_id -r cidr {-g gateway_id | -i instance_id | -n  
interface_id | -p vpc_peering_connection}
```

### Options

Name	Description
<i>route_table_id</i>	The ID of the route table for the route. Type: String Default: None Required: Yes Example: rtb-5da34634
-r, --cidr <i>cidr</i>	The CIDR address block used for the destination match. Routing decisions are based on the most specific match. Type: String Default: None

Name	Description
	Required: Yes Example: -r 0.0.0.0/0
<code>-g, --gateway gateway_id</code>	The ID of an Internet gateway or virtual private gateway attached to your VPC. Type: String Default: None Required: Conditional Condition: You must specify one of the following: <code>--gateway</code> , <code>--instance</code> , <code>--vpc-peering-connection</code> , or <code>--network-interface</code> . Example: -g igw-68a34601
<code>-i, --instance instance_id</code>	The ID of a NAT instance in your VPC. The operation fails if you specify an instance ID unless exactly one network interface is attached. Type: String Default: None Required: Conditional Condition: You must specify one of the following: <code>--gateway</code> , <code>--instance</code> , <code>--vpc-peering-connection</code> , or <code>--network-interface</code> . Example: -i i-a7c871e3
<code>-n, --network-interface interface_id</code>	The network interface associated with the route. Type: String Default: None Required: Conditional Condition: You must specify one of the following: <code>--gateway</code> , <code>--instance</code> , <code>--vpc-peering-connection</code> , or <code>--network-interface</code> . Example: -n eni-5b729933
<code>-p, --vpc-peering-connection vpc_peering_connection</code>	The VPC peering connection associated with the route. Type: String Default: None Required: Conditional Condition: You must specify one of the following: <code>--gateway</code> , <code>--instance</code> , <code>--network-interface</code> , or <code>--vpc-peering-connection</code> . Example: -p pcx-1a2b3c4d

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ROUTE identifier
- The ID of the target

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command creates a route in the route table with the ID `rtb-e4ad488d`. The route matches all traffic (`0.0.0.0/0`) and routes it to the Internet gateway with the ID `igw-eaad4883`.

```
PROMPT> ec2-create-route rtb-e4ad488d -r 0.0.0.0/0 -g igw-eaad4883
ROUTE    igw-eaad4883    0.0.0.0/0
```

### Example 2

This example command creates a route in the route table with the ID `rtb-g8ff4ea2`. The route sends all traffic (`0.0.0.0/0`) to the NAT instance with the ID `i-1a2b3c4d`.

```
PROMPT> ec2-create-route rtb-g8ff4ea2 -r 0.0.0.0/0 -i i-1a2b3c4d
ROUTE    i-1a2b3c4d     0.0.0.0/0
```

## Example 3

This example command creates a route in route table `rtb-g8ff4ea2`. The route matches traffic for the CIDR block `10.0.0.0/16` and routes it to VPC peering connection, `pcx-111aaa22`. This route enables traffic to be directed to the peer VPC in the VPC peering connection.

```
PROMPT> ec2-create-route rtb-g8ff4ea2 -r 10.0.0.0/16 -p pcx-111aaa22
ROUTE    pcx-111aaa22    10.0.0.0/16
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateRoute](#)

### Related Commands

- [ec2-delete-route \(p. 240\)](#)
- [ec2-describe-route-tables \(p. 421\)](#)
- [ec2-replace-route \(p. 647\)](#)

# ec2-create-route-table

## Description

Creates a route table for the specified VPC. After you create a route table, you can add routes and associate the table with a subnet.

For more information about route tables, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is `ec2addrtb`.

### Tip

If you are using the AWS CLI, see [create-route-table](#) instead.

## Syntax

```
ec2-create-route-table vpc_id
```

## Options

Name	Description
<code>vpc_id</code>	The ID of the VPC. Type: String Default: None Required: Yes Example: vpc-9ea045f7

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ROUTETABLE identifier
- The ID of the route table
- The ID of the VPC
- Information about the default route for every new route table



Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a route table for the VPC with the ID `vpc-9ea045f7`.

```
PROMPT> ec2-create-route-table vpc-9ea045f7  
ROULETEBLE rtb-6aa34603 vpc-9ea045f7  
ROUTE local active 172.16.0.0/16
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateRouteTable](#)

### Related Commands

- [ec2-associate-route-table \(p. 53\)](#)
- [ec2-create-route \(p. 159\)](#)
- [ec2-delete-route-table \(p. 243\)](#)
- [ec2-describe-route-tables \(p. 421\)](#)
- [ec2-disassociate-route-table \(p. 538\)](#)
- [ec2-replace-route-table-association \(p. 651\)](#)

## ec2-create-snapshot

### Description

Creates a snapshot of an Amazon EBS volume and stores it in Amazon S3. You can use snapshots for backups, to make copies of instance store volumes, and to save data before shutting down an instance.

When a snapshot is created from a volume with an AWS Marketplace product code, the product code is propagated to the snapshot.

You can take a snapshot of an attached volume that is in use. However, snapshots only capture data that has been written to your Amazon EBS volume at the time the snapshot command is issued. This might exclude any data that has been cached by any applications or the operating system. If you can

pause any file writes to the volume long enough to take a snapshot, your snapshot should be complete. However, if you can't pause all file writes to the volume, you should unmount the volume from within the instance, issue the snapshot command, and then remount the volume to ensure a consistent and complete snapshot. You can remount and use your volume while the snapshot status is `pending`.

To create a snapshot for Amazon EBS volumes that serve as root devices, you should stop the instance before taking the snapshot.

Snapshots that are taken from encrypted volumes are automatically encrypted. Volumes that are created from encrypted snapshots are also automatically encrypted. Your encrypted volumes and any associated snapshots always remain protected. For more information, see [Amazon EBS encryption](#) in the *Amazon EC2 User Guide for Linux Instances*.

For more information, see [Amazon Elastic Block Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2addsnap`.

**Tip**

If you are using the AWS CLI, see [create-snapshot](#) instead.

## Syntax

`ec2-create-snapshot` *volume\_id* [-d *description*]

## Options

Name	Description
<i>volume_id</i>	The ID of the Amazon EBS volume. Type: String Default: None Required: Yes Example: vol-4d826724
<code>-d, --description</code> <i>description</i>	A description for the snapshot. Type: String Default: None Constraints: Up to 255 characters Required: No Example: -d "Daily backup"

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The SNAPSHOT identifier
- The ID of the snapshot
- The ID of the volume. Snapshots created by the CopySnapshot action have an arbitrary volume ID that should not be used for any purpose.
- The state of the snapshot (`pending`, `completed`, `error`)
- The time stamp when the snapshot initiated
- The percentage of completion
- The ID of the snapshot owner
- The size of the volume
- The description of the snapshot
- The encryption status of the snapshot
- The full ARN of the AWS Key Management Service (AWS KMS) master key that was used to protect the volume encryption key for the volume.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a snapshot of the volume with the ID `vol-1a2b3c4d`.

```
PROMPT> ec2-create-snapshot vol-1a2b3c4d --description "Daily Backup"
SNAPSHOT snap-1a2b3c4d vol-1a2b3c4d pending YYYY-MM-DDTHH:MM:SS+0000
111122223333 30 Daily Backup Not Encrypted
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateSnapshot](#)

### Related Commands

- [ec2-delete-snapshot](#) (p. 246)
- [ec2-describe-snapshots](#) (p. 429)

# ec2-create-spot-datafeed-subscription

## Description

Creates a data feed for Spot Instances, enabling you to view Spot Instance usage logs. You can create one data feed per account. For more information, see [Spot Instance Data Feed](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addsds**.

### Tip

If you are using the AWS CLI, see [create-spot-datafeed-subscription](#) instead.

## Syntax

```
ec2-create-spot-datafeed-subscription --bucket bucket [--prefix prefix]
```

## Options

Name	Description
<code>-b, --bucket <i>bucket</i></code>	The Amazon S3 bucket in which to store the Spot Instance data feed. For more information, see <a href="#">Amazon S3 Bucket Requirements</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: String Default: None Constraints: Must be a valid bucket associated with your account. Required: Yes

Name	Description
	Example: <code>-b myawsbucket</code>
<code>-p, --prefix bucket</code>	A prefix for the data feed file names. Type: String Default: None Required: No Example: <code>-p spotdata_</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The SPOTDATAFEEDSUBSCRIPTION identifier
- The AWS account ID of the owner
- The Amazon S3 bucket where the data feed is located
- The prefix for the data feed file names
- The state (`Active` | `Inactive`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates the data feed for the account.

```
PROMPT> ec2-create-spot-datafeed-subscription -b myawsbucket -p spotdata_
SPOTDATAFEEDSUBSCRIPTION 111122223333 myawsbucket spotdata_ Active
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateSpotDatafeedSubscription](#)

### Related Commands

- [ec2-delete-spot-datafeed-subscription](#) (p. 249)
- [ec2-describe-spot-datafeed-subscription](#) (p. 436)

## ec2-create-subnet

### Description

Creates a subnet in an existing VPC.

When you create each subnet, you provide the ID of the VPC and the CIDR block you want for the subnet. After you create a subnet, you can't change its CIDR block. The subnet's CIDR block can be the same as the VPC's CIDR block (assuming you want only a single subnet in the VPC), or a subset of the VPC's CIDR block. If you create more than one subnet in a VPC, the subnets' CIDR blocks must not overlap. The smallest subnet (and VPC) you can create uses a /28 netmask (16 IP addresses), and the largest uses a /16 netmask (65,536 IP addresses).

#### Important

We reserve both the first four IP addresses and the last IP address in each subnet's CIDR block. They're not available for use.

If you add more than one subnet to a VPC, they're set up in a star topology with a logical router in the middle.

For more information about subnets, see [Your VPC and Subnets](#) in the *Amazon VPC User Guide*.



If you launch an instance in a VPC using an Amazon EBS-backed AMI, the IP address doesn't change if you stop and restart the instance (unlike a similar instance launched outside a VPC, which gets a new IP address when restarted). It's therefore possible to have a subnet with no running instances (they're all stopped), but no remaining IP addresses available. For more information about Amazon EBS-backed AMIs, see [AMI Basics](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addsubnet**.

**Tip**

If you are using the AWS CLI, see [create-subnet](#) instead.

## Syntax

```
ec2-create-subnet -c vpc_id -i cidr [ -z zone ]
```

## Options

Name	Description
-c <i>vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: -c vpc-1a2b3c4d
-i <i>cidr</i>	The CIDR block for the subnet. Type: String Default: None Required: Yes Example: -i 10.0.1.0/24
-z <i>zone</i>	The Availability Zone for the subnet. Type: String Default: Amazon EC2 selects one for you (recommended). Required: No Example: -z us-east-1a

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The SUBNET identifier
- The ID of the subnet
- The current state of the subnet (`pending` or `available`)
- The ID of the VPC the subnet is in
- The CIDR block assigned to the subnet
- The number of IP addresses in the subnet that are available
- The Availability Zone the subnet is in

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command creates a subnet with CIDR block `10.0.1.0/24` in the VPC with the ID `vpc-1a2b3c4d`.

```
PROMPT> ec2-create-subnet -c vpc-1a2b3c4d -i 10.0.1.0/24
SUBNET subnet-9d4a7b6c pending vpc-1a2b3c4d 10.0.1.0/24 251 us-east-1a
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [CreateSubnet](#)

## Related Commands

- [ec2-delete-subnet](#) (p. 252)
- [ec2-describe-subnets](#) (p. 452)

# ec2-create-tags

## Description

Adds or overwrites one or more tags for the specified resource or resources. Each resource can have a maximum of 10 tags. Each tag consists of a key and optional value. Tag keys must be unique per resource.

For more information, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2addtag**.

### Tip

If you are using the AWS CLI, see [create-tags](#) instead.

## Syntax

```
ec2-create-tags resource_id [resource_id ...] --tag key[=value] [--tag key[=value] ...]
```

## Options

Name	Description
<i>resource_id</i>	The IDs of one or more resources to tag. Type: String Default: None Required: Yes Example: ami-1a2b3c4d
--tag <i>key</i> or <i>key=value</i>	The key and optional value of the tag, separated by an equals sign (=). If you don't include a value, we set the value to an empty string.  If you're using the command line tools on a Windows system, you might need to use quotation marks (for example, "key=value"). If you're using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (for example, "`key=value`"). Type: String Default: None Constraints: The maximum tag key length is 127 Unicode characters, and may not begin with <code>aws:</code> . The maximum

Name	Description
	<p>tag value length is 255 Unicode characters. Tag keys and values are case-sensitive.</p> <p>Required: Yes</p> <p>Example: <code>--tag "stack=Production"</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The TAG identifier
- The resource type identifier
- The ID of the resource
- The tag key
- The tag value

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command adds (or overwrites) two tags for an AMI and an instance. One of the tags contains just a key (`webserver`), with no value (we set the value to an empty string). The other tag consists of a key (`stack`) and value (`Production`).

```
PROMPT> ec2-create-tags ami-1a2b3c4d i-7d3e5a2f --tag webserver --tag
"stack=Production"
TAG image ami-1a2b3c4d webserver
TAG image ami-1a2b3c4d stack Production
TAG instance i-7d3e5a2f webserver
TAG instance i-7d3e5a2f stack Production
```

### Example 2

The following example changes the value of the `stack` tag for one of your AMIs from `Production` to `Test`.

```
PROMPT> ec2-create-tags ami-1a2b3c4d --tag "stack=Test"
TAG ami-1a2b3c4d image stack Test
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateTags](#)

### Related Commands

- [ec2-delete-tags \(p. 255\)](#)
- [ec2-describe-tags \(p. 457\)](#)

## ec2-create-volume

### Description

Creates an Amazon EBS volume that can be attached to any instance in the same Availability Zone.

You can create encrypted volumes with the `--encrypted` option. Encrypted volumes may only be attached to instances that support Amazon EBS encryption. Volumes that are created from encrypted snapshots are also automatically encrypted. There is no way to create an encrypted volume from an unencrypted snapshot or vice versa. For more information, see [Amazon EBS encryption](#) in the *Amazon EC2 User Guide for Linux Instances*.

Any AWS Marketplace product codes from the snapshot are propagated to the volume.

For more information, see [Amazon Elastic Block Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2addvol`.

**Tip**

If you are using the AWS CLI, see [create-volume](#) instead.

## Syntax

```
ec2-create-volume [--size size | --snapshot snapshot_id [--size size]] --
availability-zone zone [--type type [--iops iops]] [--encrypted] [--kms-key-
id kms_key_id]
```

## Options

Name	Description
<code>-s, --size <i>size</i></code>	<p>The size of the volume, in GiBs.</p> <p>Type: String</p> <p>Valid values: 1-1024 for <code>standard</code> volumes, 1-16384 for <code>gp2</code> volumes, and 4-16384 for <code>io1</code> volumes.</p> <p>Constraints: If the volume type is <code>io1</code>, the minimum size of the volume is 4 GiB.</p> <p>Default: If you're creating the volume from a snapshot and don't specify a volume size, the default is the snapshot size.</p> <p>Required: Conditional</p> <p>Condition: Required unless you're creating the volume from a snapshot.</p> <p>Example: <code>--size 80</code></p>
<code>--snapshot <i>snapshot_id</i></code>	<p>The snapshot from which to create the volume.</p> <p>Volumes that are created from encrypted snapshots are automatically encrypted. There is no way to directly create an unencrypted volume from an encrypted snapshot or vice versa.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Conditional</p> <p>Condition: Required if you are creating a volume from a snapshot.</p> <p>Example: <code>--snapshot snap-78a54011</code></p>
<code>-z, --availability-zone <i>zone</i></code>	<p>The Availability Zone in which to create the volume.</p> <p>Use <a href="#">ec2-describe-availability-zones</a> (p. 291) to list the Availability Zones that are currently available to you.</p> <p>Type: String</p>



Name	Description
	<p>Default: None Required: Yes Example: <code>--availability-zone us-east-1a</code></p>
<p><code>-t, --type type</code></p>	<p>The volume type. For more information, see <a href="#">Amazon EBS Volume Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>. Type: String Valid values: <code>gp2</code> for General Purpose SSD volumes, <code>io1</code> for Provisioned IOPS SSD volumes, and <code>standard</code> for Magnetic volumes. Default: <code>standard</code> Required: No Example: <code>--type io1</code></p>
<p><code>-i, --iops iops</code></p>	<p>Only valid for Provisioned IOPS SSD volumes. The number of I/O operations per second (IOPS) to provision for the volume. Type: Integer Valid values: Range is 100 to 20000, with a maximum ratio of 30 IOPS/GiB. Default: None Required: Conditional Condition: Required when the volume type is <code>io1</code>; not used with <code>standard</code> or <code>gp2</code> volumes. Example: <code>--iops 500</code></p>
<p><code>--encrypted</code></p>	<p>Indicates whether the volume will be encrypted. Encrypted Amazon EBS volumes may only be attached to instances that support Amazon EBS encryption. Volumes that are created from encrypted snapshots are automatically encrypted. There is no way to create an encrypted volume from an unencrypted snapshot or vice versa. Default: No Required: No</p>
<p><code>-k, --kms-key-id kms_key_id</code></p>	<p>The full ARN of the AWS Key Management Service (AWS KMS) master key to use when creating the encrypted volume. This parameter is only required if you want to use a non-default master key; if this parameter is not specified, the default master key is used. The ARN contains the <code>arn:aws:kms</code> namespace, followed by the region of the master key, the AWS account ID of the master key owner, the <code>key</code> namespace, and then the master key ID. For example, <code>arn:aws:kms:us-east-1:012345678910:key/abcd1234-a123-456a-a12b-a123b4cd56ef</code>. Default: The full ARN of the <code>aws/ebs</code> master key for your account in the region specified. Required: No</p>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VOLUME identifier
- The ID of the volume
- The size of the volume, in GiBs
- The snapshot from which the volume was created, if applicable
- The Availability Zone in which the volume was created
- The volume state (`creating`, `available`, `in-use`, `deleting`, `deleted`, `error`)
- The time stamp when volume creation was initiated
- The Amazon EBS volume type
- The number of I/O operations per second (IOPS) that the volume supports. For Provisioned IOPS SSD volumes, this represents the number of IOPS that have been provisioned for the volume. For General Purpose SSD volumes, this represents the baseline performance of the volume and the rate at which the volume accumulates I/O credits for bursting. For more information on General

Purpose SSD baseline performance, I/O credits, and bursting, see [Amazon EBS Volume Types](#) in the *Amazon EC2 User Guide for Linux Instances*.

- The encryption status of the volume (`Encrypted` for encrypted and `Not Encrypted` for unencrypted)
- The full ARN of the AWS Key Management Service (AWS KMS) master key that was used to protect the volume encryption key for the volume. This is only displayed if the `--kms-key-id` option was used to create the volume.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command creates a 60 GiB General Purpose SSD volume in the Availability Zone `us-east-1b`.

```
PROMPT> ec2-create-volume --size 60 --region us-east-1 --availability-zone
us-east-1b --type gp2
VOLUME vol-1a2b3c4d 60 us-east-1b creating YYYY-MM-DDTHH:MM:SS+0000 gp2 180
Not Encrypted
```

### Example

This example command creates an encrypted 20 GiB Magnetic volume in the Availability Zone `us-east-1a`.

```
PROMPT> ec2-create-volume --size 20 --availability-zone us-east-1a --
encrypted
VOLUME vol-1a2b3c4d 20 us-east-1a creating YYYY-MM-DDTHH:MM:SS+0000 standard
Encrypted
```

### Example

This example command creates a new Provisioned IOPS SSD volume with 1,000 Provisioned IOPS SSD from a snapshot in the Availability Zone `us-east-1a`.

```
PROMPT> ec2-create-volume --snapshot snap-5178cf30 --type io1 --iops 1000 --
availability-zone us-east-1a
VOLUME vol-1a2b3c4d 500 snap-5178cf30 us-east-1a creating YYYY-MM-DDTHH:MM:SS
+0000 io1 1000 Not Encrypted
```

### Example

This example request creates an 8 GiB encrypted General Purpose SSD volume in the Availability Zone `us-east-1b` with an AWS Key Management Service Customer Master Key.

```
PROMPT> ec2-create-volume --type gp2 --availability-zone us-east-1b --
encrypted --kms-key-id arn:aws:kms:us-east-1:012345678910:key/abcd1234-
a123-456a-a12b-a123b4cd56ef
```

```
VOLUME vol-1a2b3c4d 8 us-east-1b creating 2014-11-10T22:34:17+0000 gp2 24  
Encrypted arn:aws:kms:us-east-1:012345678910:key/abcd1234-a123-456a-a12b-  
a123b4cd56ef
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVolume](#)

### Related Commands

- [ec2-attach-volume](#) (p. 66)
- [ec2-delete-volume](#) (p. 258)
- [ec2-describe-availability-zones](#) (p. 291)
- [ec2-describe-volumes](#) (p. 470)
- [ec2-detach-volume](#) (p. 521)

## ec2-create-vpc

### Description

Creates a VPC with the CIDR block you specify.

The smallest VPC you can create uses a /28 netmask (16 IP addresses), and the largest uses a /16 netmask (65,536 IP addresses). To help you decide how big to make your VPC, see [Your VPC and Subnets](#) in the *Amazon VPC User Guide*.

By default, each instance you launch in the VPC has the default DHCP options, which includes only a default DNS server that we provide (AmazonProvidedDNS).

For more information about DHCP options, see [DHCP Options Sets](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addvpc**.

#### Tip

If you are using the AWS CLI, see [create-vpc](#) instead.

### Syntax

```
ec2-create-vpc cidr [--tenancy tenancy]
```

## Options

Name	Description
<code>cidr</code>	The CIDR block for the VPC. Type: String Default: None Required: Yes Example: 10.0.0.0/16
<code>--tenancy <i>tenancy</i></code>	The supported tenancy options for instances launched into the VPC. A value of <code>default</code> means instances can be launched with any tenancy; a value of <code>dedicated</code> means all instances launched into the VPC are launched as dedicated tenancy instances regardless of the tenancy assigned to the instance at launch. Dedicated tenancy instances run on single-tenant hardware. Type: String Valid values: <code>default</code>   <code>dedicated</code> Default: <code>default</code> Required: No Example: <code>--tenancy dedicated</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPC identifier
- The ID of the VPC
- The CIDR block of the VPC
- The current state of the VPC (`pending` or `available`)
- The ID of the DHCP options associated with the VPC (or `default` if none)
- The supported tenancy options for instances launched into the VPC (`default` or `dedicated`).

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command creates a VPC with the CIDR block `10.0.0.0/16`.

```
PROMPT> ec2-create-vpc 10.0.0.0/16
VPC vpc-1a2b3c4d pending 10.0.0.0/16 dopt-1a2b3c4d default
```

### Example 2

This example command creates a VPC with the `dedicated` tenancy option.

```
PROMPT> ec2-create-vpc 10.0.0.0/16 --tenancy dedicated
VPC vpc-1a2b3c4d pending 10.0.0.0/16 dopt-1a2b3c4d dedicated
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.



## Related Action

- [CreateVpc](#)

## Related Commands

- [ec2-associate-dhcp-options](#) (p. 49)
- [ec2-create-dhcp-options](#) (p. 115)
- [ec2-delete-vpc](#) (p. 261)
- [ec2-describe-vpcs](#) (p. 497)

# ec2-create-vpc-endpoint

## Description

Creates a VPC endpoint for a specified AWS service. An endpoint enables you to create a private connection between your VPC and another AWS service in your account. You can specify a policy to attach to the endpoint that will control access to the service from your VPC. You can also specify the VPC route tables that use the endpoint.

### Note

Currently, only endpoints to Amazon S3 are supported.

The short version of this command is **ec2cve**.

### Tip

If you are using the AWS CLI, see [create-vpc-endpoint](#) instead.

## Syntax

```
ec2-create-vpc-endpoint vpc --service-name service_name [--policy-document policy_document] [--route-table route_table]
```

## Options

Name	Description
<i>vpc</i>	The ID of the VPC in which the endpoint will be used. Type: String Default: None Required: Yes Example: -c vpc-1a2b3c4d
-s --service-name <i>service_name</i>	The AWS service name, in the form <code>com.amazonaws.&lt;region&gt;.&lt;service&gt;</code> . Type: String Default: None Required: Yes Example: -s com.amazonaws.us-east-1.s3
-p --policy-document <i>policy_document</i>	A policy document to attach to the endpoint that controls access to the specified service. The document must be a valid JSON file.

Name	Description
	<p>Type: String</p> <p>Default: If no policy is attached, we attach a policy that allows access to the service.</p> <p>Required: No</p> <p>Example: <code>-p my-endpoint-policy.json</code></p>
<code>-r --route-table route_table</code>	<p>The ID of a route table to associate with the endpoint. Specify this parameter more than one time for multiple route tables.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-r rtb-11aa22bb</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>

Option	Description
<code>--request-timeout</code> <code>timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each request:

- The endpoint information:
  - The VPCENDPOINT identifier
  - The endpoint ID
  - The VPC ID
  - The AWS service name
  - The state of the endpoint
  - A timestamp
  - The endpoint policy
- The route table information:
  - The ROUTETABLE identifier
  - The route table ID

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example creates an endpoint between VPC `vpc-1a2b3c4d` and Amazon S3, and associates route table `rtb-11aa22bb` with the endpoint.

```
PROMPT> ec2-create-vpc-endpoint vpc-1a2b3c4d -s com.amazonaws.us-west-2.s3 -r  
rtb-11aa22bb  
VPCENDPOINT vpce-123abcde vpc-1a2b3c4d com.amazonaws.us-west-2.s3 available  
Fri Feb 20 16:54:29 SAST 2015 {"Version":"2008-10-17","Statement":  
[{"Sid":"","Effect":"Allow","Principal":"*","Action":"*","Resource":"*"}]}  
ROUTETABLE rtb-11aa22bb
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVpcEndpoint](#)

### Related Commands

- [ec2-delete-vpc-endpoints \(p. 264\)](#)
- [ec2-describe-prefix-lists \(p. 390\)](#)

- [ec2-describe-vpc-endpoints](#) (p. 484)
- [ec2-describe-vpc-endpoint-services](#) (p. 488)
- [ec2-modify-vpc-endpoint](#) (p. 613)

## ec2-create-vpc-peering-connection

### Description

Requests a VPC peering connection between two VPCs: a requester VPC that you own and a peer VPC with which to create the connection. The peer VPC can belong to another AWS account. The requester VPC and peer VPC cannot have overlapping CIDR blocks.

The owner of the peer VPC must accept the peering request to activate the peering connection. The VPC peering connection request expires after 7 days, after which it cannot be accepted or rejected.

An `ec2-create-vpc-peering-connection` request between VPCs with overlapping CIDR blocks results in the VPC peering connection having a status of `failed`.

For more information, see [VPC Peering](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addpcx**.

#### Tip

If you are using the AWS CLI, see [create-vpc-peering-connection](#) instead.

### Syntax

```
ec2-create-vpc-peering-connection -c vpc -p vpc [-o peer_owner_id]
```

### Options

Name	Description
<code>-c, --vpc <i>vpc</i></code>	The ID of the requester VPC. Type: String Default: None Required: Yes Example: <code>-c vpc-1a2b3c4d</code>
<code>-p, --peer-vpc <i>vpc</i></code>	The ID of the VPC with which you are creating the peering connection. Type: String Default: None Required: Yes Example: <code>-p vpc-123abc45</code>
<code>-o, --peer-owner-id <i>peer_owner_id</i></code>	The AWS account ID of the owner of the peer VPC. Type: String Default: Your AWS account ID Required: Conditional Condition: Required if the peer VPC is not in the same account as the requester VPC. Example: <code>-o 111122223333</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each peering connection request:

- The VPC peering connection information
  - The `VPCPEERINGCONNECTION` identifier
  - The VPC peering connection ID
  - The expiration date and time of the request
  - The status of the VPC peering connection request
- The requester VPC information
  - The `REQUESTERVPCINFO` identifier
  - The VPC ID
  - The CIDR block
  - The AWS account ID
- The peer VPC information
  - The `ACCEPTERVPCINFO` identifier

- The VPC ID
- The AWS account ID

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example requests a peering connection between your VPCs `vpc-1a2b3c4d` and `vpc-11122233`.

```
PROMPT> ec2-create-vpc-peering-connection -c vpc-1a2b3c4d -p vpc-11122233
VPCPEERINGCONNECTION pcx-111aaa111 Mon Feb 17 14:30:08 SAST 2014 initiating-
request: Initiating Request to 444455556666
REQUESTERVPCINFO vpc-1a2b3c4d 10.0.1.0/28 444455556666
ACCEPTERVPCINFO vpc-11122233 444455556666
```

### Example 2

This example requests a peering connection between your VPC (`vpc-1a2b3c4d`), and a VPC (`vpc-123abc45`) that belongs AWS account `123456789012`.

```
PROMPT> ec2-create-vpc-peering-connection -c vpc-1a2b3c4d -p vpc-123abc45 -o
123456789012
VPCPEERINGCONNECTION pcx-111aaa111 Mon Feb 17 14:30:08 SAST 2014 initiating-
request: Initiating Request to 111122223333
REQUESTERVPCINFO vpc-1a2b3c4d 10.0.1.0/28 111122223333
ACCEPTERVPCINFO vpc-123abc45 123456789012
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVpcPeeringConnection](#)

### Related Commands

- [ec2-accept-vpc-peering-connection \(p. 34\)](#)
- [ec2-delete-vpc-peering-connection \(p. 267\)](#)
- [ec2-describe-vpc-peering-connections \(p. 491\)](#)



- [ec2-reject-vpc-peering-connection](#) (p. 633)
- [ec2-create-route](#) (p. 159)
- [ec2-replace-route](#) (p. 647)

## ec2-create-vpn-connection

### Description

Creates a VPN connection between an existing virtual private gateway and customer gateway. The only supported connection type is `ipsec.1`.

The output includes information that you need to give to your network administrator to configure your customer gateway. The underlying native format of this information is XML; however, with the **ec2-create-vpn-connection** command, you can transform the information into a different format based on the vendor that makes your customer gateway (for example, Cisco or Juniper). If you use a vendor other than Cisco or Juniper, you can set the `--format` option to `generic`, and the information is formatted in a human readable format for your network administrator. If you want to see the native XML, you can specify `xml` as the value of the `--format` option. If you want to write your own stylesheet, you can use the `--stylesheet` option to specify that stylesheet and receive the output in your own format. Whereas the **ec2-create-vpn-connection** command lets you choose a format for the configuration information, the corresponding API action (`CreateVpnConnection`) returns only the native XML.

If you decide to shut down your VPN connection for any reason and later create a new one, you must reconfigure your customer gateway with the new information returned from this command.

This is an idempotent operation. If you perform the operation more than once, Amazon EC2 doesn't return an error.

For more information about VPN connections, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addvpn**.

#### Tip

If you are using the AWS CLI, see [create-vpn-connection](#) instead.

### Syntax

```
ec2-create-vpn-connection -t type --customer-gateway customer_gateway_id
--vpn-gateway vpn_gateway_id [--format format] | [--stylesheet
your_stylesheet}]
```

### Options

Name	Description
<code>-t <i>type</i></code>	The type of VPN connection. Type: String Valid values: <code>ipsec.1</code> Default: None Required: Yes Example: <code>-t ipsec.1</code>

Name	Description
<code>--customer-gateway</code> <code>customer_gateway_id</code>	The ID of the customer gateway. Type: String Default: None Required: Yes Example: <code>--customer-gateway cgw-b4dc3961</code>
<code>--vpn-gateway</code> <code>vpn_gateway_id</code>	The ID of the virtual private gateway. Type: String Default: None Required: Yes Example: <code>--vpn-gateway vgw-8db04f81</code>
<code>--format</code> <code>format</code>	Includes customer gateway configuration information in the response, in the format specified. The returned information can be formatted for various devices, including a Cisco device ( <code>cisco-ios-isr</code> ) or Juniper device ( <code>juniper-junos-j</code> ), in human readable format ( <code>generic</code> ), or in the native XML format ( <code>xml</code> ). Type: String Valid values: <code>cisco-ios-isr</code>   <code>juniper-junos-j</code>   <code>juniper-screensos-6.2</code>   <code>juniper-screensos-6.1</code>   <code>generic</code>   <code>xml</code> Default: None Required: No Example: <code>--format cisco-ios-isr</code>
<code>--stylesheet</code> <code>your_stylesheet</code>	Includes customer gateway configuration information in the response, formatted according to the custom XSL stylesheet specified. Type: String Default: None Required: No Example: <code>--stylesheet c:\my_stylesheet.xsl</code>
<code>--static-routes-only</code>	Indicates whether the VPN connection requires static routes. If you are creating a VPN connection for a device that does not support BGP, you must specify this value as <code>true</code> . Type: Boolean Default: <code>false</code> Required: No

## Common Options

Option	Description
<code>--region</code> <code>region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The VPNCONNECTION identifier
- The ID of the VPN connection
- The current state of the VPN connection (*pending*, *available*, *deleting*, *deleted*)
- The type of VPN connection (*ipsec.1*)
- The ID of the customer gateway
- The ID of the virtual private gateway
- The configuration information for the customer gateway

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a VPN connection between the virtual private gateway with the ID `vgw-8db04f81` and the customer gateway with the ID `cgw-b4dc3961`. The example specifies that the configuration information be formatted as needed for a Cisco customer gateway. Because it's a long set of information, we haven't included the complete output here. To see an example of the configuration information returned, see the [Amazon VPC Network Administrator Guide](#).

```
PROMPT> ec2-create-vpn-connection -t ipsec.1 --customer-gateway cgw-b4dc3961
--vpn-gateway
vgw-8db04f81 --format cisco-ios-isr
VPNCONNECTION vpn-44a8938f pending ipsec.1 cgw-b4dc3961 vgw-8db04f81
...Customer gateway configuration data in escaped XML format...
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVpnConnection](#)

### Related Commands

- [ec2-attach-vpn-gateway](#) (p. 70)
- [ec2-create-subnet](#) (p. 173)
- [ec2-create-vpc](#) (p. 186)
- [ec2-delete-vpn-connection](#) (p. 270)
- [ec2-describe-vpn-connections](#) (p. 501)

## ec2-create-vpn-connection-route

### Description

Creates a static route associated with a VPN connection between an existing virtual private gateway and a VPN customer gateway. The static route allows traffic to be routed from the virtual private gateway to the VPN customer gateway.

For more information about VPN connections, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2cvcr**.

#### Tip

If you are using the AWS CLI, see [create-vpn-connection-route](#) instead.

### Syntax

```
ec2-create-vpn-connection-route --vpn-connection vpn_connection_id --cidr  
cidr_block
```

### Options

Name	Description
<code>--vpn-connection</code> <code><i>vpn_connection_id</i></code>	The ID of the VPN connection. Type: String Default: None

Name	Description
	Required: Yes
<code>--cidr <i>cidr_block</i></code>	The CIDR block associated with the local subnet of the customer network. Type: String Default: None Required: Yes

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout <i>timeout</i></code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout <i>timeout</i></code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns `true` if the operation succeeds or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command creates a static route to the VPN connection for the VPN connection with the ID `vpn-83ad48ea` to the destination CIDR block `11.12.0.0/16`.

```
PROMPT> ec2-create-vpn-connection-route --cidr "11.12.0.0/16" --vpn-connection vpn-83ad48ea
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVpnConnectionRoute](#)

## ec2-create-vpn-gateway

### Description

Creates a virtual private gateway. A virtual private gateway is the endpoint on the VPC side of your VPN connection. You can create a virtual private gateway before creating the VPC itself.

For more information about virtual private gateways, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2addvgw**.

#### Tip

If you are using the AWS CLI, see [create-vpn-gateway](#) instead.

### Syntax

```
ec2-create-vpn-gateway -t type
```

### Options

Name	Description
-t <i>type</i>	The type of VPN connection this virtual private gateway supports. Type: String Valid values: <code>ipsec.1</code> Default: None Required: Yes Example: <code>-t ipsec.1</code>



## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPNGATEWAY identifier
- The ID of the virtual private gateway
- The current state of the virtual private gateway (`pending, available, deleting, deleted`)
- The type of VPN connection the virtual private gateway supports (`ipsec.1`)
- The Availability Zone for the virtual private gateway
- Information about VPCs attached to the virtual private gateway (there are none attached when you first create a virtual private gateway)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a virtual private gateway.

```
PROMPT> ec2-create-vpn-gateway -t ipsec.1  
VPNGATEWAY vgw-8db04f81 pending ipsec.1
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [CreateVpnGateway](#)

### Related Commands

- [ec2-attach-vpn-gateway \(p. 70\)](#)
- [ec2-delete-vpn-gateway \(p. 276\)](#)
- [ec2-describe-vpn-gateways \(p. 507\)](#)
- [ec2-detach-vpn-gateway \(p. 525\)](#)

## ec2-delete-customer-gateway

### Description

Deletes the specified customer gateway. You must delete the VPN connection before you can delete the customer gateway.

For more information about VPN customer gateways, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delcgw**.

#### Tip

If you are using the AWS CLI, see [delete-customer-gateway](#) instead.

### Syntax

```
ec2-delete-customer-gateway customer_gateway_id
```

## Options

Name	Description
<code>customer_gateway_id</code>	The ID of the customer gateway. Type: String Default: None Required: Yes Example: cgw-b4dc3961

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `CUSTOMERGATEWAY` identifier
- The ID of the customer gateway

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command deletes the specified customer gateway.

```
PROMPT> ec2-delete-customer-gateway cgw-b4dc3961  
CUSTOMERGATEWAY cgw-b4dc3961
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteCustomerGateway](#)

### Related Commands

- [ec2-create-customer-gateway \(p. 112\)](#)
- [ec2-describe-customer-gateways \(p. 307\)](#)

## ec2-delete-dhcp-options

### Description

Deletes the specified set of DHCP options. You must disassociate the set of DHCP options before you can delete it. You can disassociate the set of DHCP options by associating either a new set of options or the default set of options with the VPC.

For more information about DHCP options sets, see [DHCP Options Sets](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2deldopt**.

#### Tip

If you are using the AWS CLI, see [delete-dhcp-options](#) instead.

### Syntax

```
ec2-delete-dhcp-options dhcp_options_id
```

## Options

Name	Description
<code>dhcp_options_id</code>	The ID of the DHCP options set. Type: String Default: None Required: Yes Example: dopt-7a8b9c2d

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The DHCPOPTIONS identifier
- The ID of the DHCP options set

Amazon EC2 command line tools display errors on stderr.



## Examples

### Example

This example command deletes the specified set of DHCP options.

```
PROMPT> ec2-delete-dhcp-options dopt-7a8b9c2d  
DHCOPTIONS dopt-7a8b9c2d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteDhcpOptions](#)

### Related Commands

- [ec2-associate-dhcp-options \(p. 49\)](#)
- [ec2-create-dhcp-options \(p. 115\)](#)
- [ec2-describe-dhcp-options \(p. 312\)](#)

## ec2-delete-disk-image

### Description

Deletes the specified partially or fully uploaded disk image for conversion from Amazon S3. You can specify either the conversion task ID or the URL to the import manifest file in Amazon S3.

For more information, see [Clean Up After an Upload \(p. 744\)](#).

The short version of this command is **ec2ddi**.

### Syntax

```
ec2-delete-disk-image { -t task_id | -u url } -o owner_access_key_id -w  
owner_secret_access_key [--ignore-active-task]
```

## Options

Name	Description
<code>-t, --task <i>task_id</i></code>	The Task ID of the conversion task that is no longer active. Type: String Default: None Required: Conditional Condition: Either the task ID or the URL to the manifest is required. Example: <code>-t import-i-fh95npoc</code>
<code>-u, --manifest-url <i>url</i></code>	The URL for an existing import manifest file. Use this option to delete the uploaded disk image even if one or more active conversion tasks still reference the manifest. For information about the import manifest, see <a href="#">VM Import Manifest</a> . Type: String Default: None Required: Conditional Condition: Either the task ID or the URL to the manifest is required. Example: <code>-u http://s3.example.com/mydisk-to-delete.vmdk</code>
<code>-o, --owner-akid <i>owner_access_key_id</i></code>	The access key ID of the owner of the bucket containing the uploaded disk image to be deleted. This parameter value is not sent to Amazon EC2. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a> . Type: String Default: None Required: Yes Example: <code>-o AKIAIOSFODNN7EXAMPLE</code>
<code>-w, --owner-sak <i>owner_secret_access_key</i></code>	The AWS secret access key of the owner of the bucket containing the uploaded disk image to be deleted. This parameter value is not sent to Amazon EC2. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a> . Type: String Default: None Required: Yes Example: <code>-w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>--ignore-active-task</code>	Delete the uploaded disk image despite having an active task. Using this option may cause active tasks to fail. Use this option at your own risk. Type: String Default: None Required: No Example: <code>--ignore-active-task</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the task

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the disk image with the ID `import-i-fh95npoc`.

```
PROMPT> ec2-delete-disk-image -t import-i-fh95npoc -o AKIAIOSFODNN7EXAMPLE -w
wJalrXUtNfEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
DELETE-TASK import-i-fh95npoc
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### Related Commands

- [ec2-cancel-conversion-task](#) (p. 87)
- [ec2-import-instance](#) (p. 560)
- [ec2-import-volume](#) (p. 571)
- [ec2-resume-import](#) (p. 684)

## ec2-delete-group

### Description

Deletes the specified security group.

#### Important

If you attempt to delete a security group that is associated with an instance, or is referenced by another security group, the operation fails with `InvalidGroup.InUse` for EC2-Classic or `DependencyViolation` for EC2-VPC.

The short version of this command is **ec2delgrp**.

#### Tip

If you are using the AWS CLI, see [delete-security-group](#) instead.

### Syntax

```
ec2-delete-group { group_name | group_id }
```

### Options

Name	Description
<i>group_name</i>	[EC2-Classic, default VPC] The name of the security group. Type: String Default: None Required: Conditional Condition: For EC2-Classic and default VPCs, you can specify either <i>group_name</i> or <i>group_id</i> . Example: <code>webserv</code>
<i>group_id</i>	The ID of the security group. Type: String Default: None Required: Conditional

Name	Description
	<p>Condition: Required for a nondefault VPC; for EC2-Classical or a default VPC, you can specify either <i>group_name</i> or <i>group_id</i>.</p> <p>Example: <code>sg-32fa9d3e</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command deletes the specified security group for EC2-Classic.

```
PROMPT> ec2-delete-group webserv  
RETURN true
```

## Example 2

This example command deletes the specified security group for EC2-VPC.

```
PROMPT> ec2-delete-group sg-1a2b3c4d  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteSecurityGroup](#)

### Related Commands

- [ec2-authorize \(p. 73\)](#)
- [ec2-create-group \(p. 119\)](#)
- [ec2-describe-group \(p. 320\)](#)
- [ec2-revoke \(p. 688\)](#)

## ec2-delete-internet-gateway

### Description

Deletes the specified Internet gateway. You must detach the Internet gateway from the VPC before you can delete it. For more information about your VPC and Internet gateway, see the [Amazon VPC User Guide](#).

The short version of this command is **ec2deligw**.

#### Tip

If you are using the AWS CLI, see [delete-internet-gateway](#) instead.

### Syntax

```
ec2-delete-internet-gateway internet_gateway_id
```



## Options

Name	Description
<i>internet_gateway_id</i>	The ID of the Internet gateway. Type: String Default: None Required: Yes Example: igw-8db04f81

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command deletes the specified Internet gateway.

```
PROMPT> ec2-delete-internet-gateway igw-eaad4883  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteInternetGateway](#)

### Related Commands

- [ec2-attach-internet-gateway \(p. 60\)](#)
- [ec2-create-internet-gateway \(p. 133\)](#)
- [ec2-describe-internet-gateways \(p. 362\)](#)
- [ec2-detach-internet-gateway \(p. 515\)](#)

## ec2-delete-keypair

### Description

Deletes the specified key pair, by removing the public key from Amazon EC2. You must own the key pair.

The short version of this command is **ec2delkey**.

#### Tip

If you are using the AWS CLI, see [delete-key-pair](#) instead.

### Syntax

```
ec2-delete-keypair key_pair
```

## Options

Name	Description
<code>key_pair</code>	The name of the key pair. Type: String Default: None Required: Yes Example: <code>primary_keypair</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The KEYPAIR identifier
- The name of the deleted key pair

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the key pair named `my-key-pair`.

```
PROMPT> ec2-delete-keypair my-key-pair  
KEYPAIR my-key-pair
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteKeyPair](#)

### Related Commands

- [ec2-create-keypair \(p. 136\)](#)
- [ec2-describe-keypairs \(p. 367\)](#)

## ec2-delete-network-acl

### Description

Deletes the specified network ACL. You can't delete the ACL if it's associated with any subnets. You can't delete the default network ACL. For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delnacl**.

#### Tip

If you are using the AWS CLI, see [delete-network-acl](#) instead.

### Syntax

```
ec2-delete-network-acl acl_id
```

## Options

Name	Description
<code>acl_id</code>	The ID of the network ACL. Type: String Default: None Required: Yes Example: <code>acl-2cb85d45</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.



## Examples

### Example

This example command deletes the specified network ACL.

```
PROMPT> ec2-delete-network-acl acl-2cb85d45  
RETURN    true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteNetworkAcl](#)

### Related Commands

- [ec2-create-network-acl \(p. 140\)](#)
- [ec2-describe-network-acls \(p. 370\)](#)
- [ec2-replace-network-acl-association \(p. 640\)](#)

## ec2-delete-network-acl-entry

### Description

Deletes the specified ingress or egress entry (rule) from the specified network ACL. For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delnae**.

#### Tip

If you are using the AWS CLI, see [delete-network-acl-entry](#) instead.

### Syntax

```
ec2-delete-network-acl-entry acl_id -n rule_number [--egress]
```

## Options

Name	Description
<code>acl_id</code>	The ID of the network ACL. Type: String Default: None Required: Yes Example: <code>acl-5fb85d36</code>
<code>-n, --rule-number rule_number</code>	The rule number of the entry to delete. Type: Number Default: None Required: Yes Example: <code>100</code>
<code>--egress</code>	Indicates that the rule is an egress rule. Default: If not specified, the rule is an ingress rule. Required: No

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command deletes ingress rule number 100 from the specified network ACL.

```
PROMPT> ec2-delete-network-acl-entry acl-2cb85d45 -n 100
RETURN true
```

### Example 2

This example command deletes the egress entry with rule number 200 from the network ACL with the ID `acl-2cb85d45`.

```
PROMPT> ec2-delete-network-acl-entry acl-2cb85d45 -n 200 --egress
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteNetworkAclEntry](#)

## Related Commands

- [ec2-create-network-acl-entry](#) (p. 143)
- [ec2-describe-network-acls](#) (p. 370)
- [ec2-replace-network-acl-entry](#) (p. 643)

# ec2-delete-network-interface

## Description

Deletes the specified network interface. You must detach the network interface before you can delete it.

The short version of this command is **ec2delnic**.

### Tip

If you are using the AWS CLI, see [delete-network-interface](#) instead.

## Syntax

`ec2-delete-network-interface` *interface\_id*

## Options

Name	Description
<i>interface_id</i>	The ID of the network interface. Type: String Default: None Required: Yes Example: eni-3a9f6553

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.

Option	Description
	Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `NETWORKINTERFACE` identifier
- The ID of the network interface that you deleted

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command deletes the specified network interface.

```
PROMPT> ec2-delete-network-interface eni-3a9f6553  
NETWORKINTERFACE      eni-3a9f6553
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteNetworkInterface](#)

## Related Commands

- [ec2-attach-network-interface](#) (p. 63)
- [ec2-create-network-interface](#) (p. 147)
- [ec2-describe-network-interface-attribute](#) (p. 376)
- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-detach-network-interface](#) (p. 518)
- [ec2-modify-network-interface-attribute](#) (p. 591)
- [ec2-reset-network-interface-attribute](#) (p. 677)

# ec2-delete-placement-group

## Description

Deletes the specified placement group. You must terminate all instances in a placement group before you can delete the placement group. For more information about placement groups and cluster instances, see [Cluster Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2delpgrp**.

### Tip

If you are using the AWS CLI, see [delete-placement-group](#) instead.

## Syntax

```
ec2-delete-placement-group placement_group
```

## Options

Name	Description
<i>placement_group</i>	The name of the placement group. Type: String Default: None Required: Yes Example: XYZ-cluster

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns the following information:

- The PLACEMENTGROUP identifier
- The name of the placement group
- The status of the placement group (`deleted`)

## Examples

### Example

This example command deletes the placement group named `XYZ-cluster`.

```
PROMPT> ec2-delete-placement-group XYZ-cluster
PLACEMENTGROUP XYZ-cluster deleted
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeletePlacementGroup](#)

## Related Commands

- [ec2-create-placement-group](#) (p. 152)
- [ec2-describe-placement-groups](#) (p. 387)

# ec2-delete-route

## Description

Deletes the specified route from the specified route table. For more information, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delrt**.

### Tip

If you are using the AWS CLI, see [delete-route](#) instead.

## Syntax

```
ec2-delete-route route_table_id -r cidr
```

## Options

Name	Description
<i>route_table_id</i>	The ID of the route table. Type: String Default: None Required: Yes Example: rtb-5da34634
-r, --cidr <i>cidr</i>	The CIDR range for the route. The value you specify must match the CIDR for the route exactly. Type: String Default: None Required: Yes Example: 0.0.0.0/0

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the route with the destination CIDR `172.16.1.0/24` from the specified route table.

```
PROMPT> ec2-delete-route rtb-e4ad488d -r 172.16.1.0/24
RETURN          true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteRoute](#)

## Related Commands

- [ec2-create-route](#) (p. 159)
- [ec2-describe-route-tables](#) (p. 421)
- [ec2-replace-route](#) (p. 647)

# ec2-delete-route-table

## Description

Deletes the specified route table. You must disassociate the route table from any subnets before you can delete it. You can't delete the main route table. For more information, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delrtb**.

### Tip

If you are using the AWS CLI, see [delete-route-table](#) instead.

## Syntax

**ec2-delete-route-table** *route\_table\_id*

## Options

Name	Description
<i>route_table_id</i>	The ID of the route table. Type: String Default: None Required: Yes Example: rtb-7aa34613

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command deletes the specified route table.

```
PROMPT> ec2-delete-route-table rtb-7aa34613
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteRouteTable](#)

### Related Commands

- [ec2-associate-route-table](#) (p. 53)



- [ec2-create-route-table](#) (p. 163)
- [ec2-describe-route-tables](#) (p. 421)
- [ec2-disassociate-route-table](#) (p. 538)
- [ec2-replace-route-table-association](#) (p. 651)

## ec2-delete-snapshot

### Description

Deletes the specified snapshot. When you make periodic snapshots of a volume, the snapshots are incremental, and only the blocks on the device that have changed since your last snapshot are saved in the new snapshot. When you delete a snapshot, only the data not needed for any other snapshot is removed. So regardless of which prior snapshots have been deleted, all active snapshots will have access to all the information needed to restore the volume.

#### Note

You cannot delete a snapshot of the root device of an Amazon EBS volume used by a registered AMI. You must first de-register the AMI before you can delete the snapshot. For more information, see [Deregistering Your AMI](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2delsnap**.

#### Tip

If you are using the AWS CLI, see [delete-snapshot](#) instead.

### Syntax

```
ec2-delete-snapshot snapshot_id
```

### Options

Name	Description
<i>snapshot_id</i>	The ID of the Amazon EBS snapshot. Type: String Default: None Required: Yes Example: snap-78a54011

### Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The SNAPSHOT identifier
- The ID of the snapshot

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the snapshot with the ID `snap-1a2b3c4d`.

```
PROMPT> ec2-delete-snapshot snap-1a2b3c4d
SNAPSHOT snap-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DeleteSnapshot](#)

## Related Commands

- [ec2-create-snapshot](#) (p. 166)
- [ec2-describe-snapshots](#) (p. 429)

# ec2-delete-spot-datafeed-subscription

## Description

Deletes the data feed for Spot Instances. For more information, see [Spot Instance Data Feed](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2delsds**.

### Tip

If you are using the AWS CLI, see [delete-spot-datafeed-subscription](#) instead.

## Syntax

```
ec2-delete-spot-datafeed-subscription
```

## Options

This command has no options.

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key.

Option	Description
	Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns no output.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the data feed for the account.

```
PROMPT> ec2-delete-spot-datafeed-subscription  
-
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteSpotDatafeedSubscription](#)

### Related Commands

- [ec2-create-spot-datafeed-subscription \(p. 170\)](#)
- [ec2-describe-spot-datafeed-subscription \(p. 436\)](#)

## ec2-delete-subnet

### Description

Deletes the specified subnet. You must terminate all running instances in the subnet before you can delete the subnet.

The short version of this command is **ec2delsubnet**.

**Tip**

If you are using the AWS CLI, see [delete-subnet](#) instead.

### Syntax

**ec2-delete-subnet** *subnet\_id*

### Options

Name	Description
<i>subnet_id</i>	The ID of the subnet. Type: String Default: None Required: Yes Example: subnet-9d4a7b6c

### Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>



Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The SUBNET identifier
- The ID of the subnet

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the specified subnet.

```
PROMPT> ec2-delete-subnet subnet-9d4a7b6c  
SUBNET subnet-9d4a7b6c
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteSubnet](#)

### Related Commands

- [ec2-create-subnet \(p. 173\)](#)
- [ec2-describe-subnets \(p. 452\)](#)

## ec2-delete-tags

### Description

Deletes the specified set of tags from the specified set of resources. This command is designed to follow the `ec2-describe-tags` command.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2deltag`.

**Tip**

If you are using the AWS CLI, see [delete-tags](#) instead.

### Syntax

```
ec2-delete-tags resource_id [resource_id ... ] --tag key[=value] [--tag key[=value] ...]
```

### Options

Name	Description
<i>resource_id</i>	One or more resource IDs. Type: String Default: None Required: Yes Example: i-1a2b3c4d
--tag <i>key</i> or <i>key=value</i>	The key and optional value of the tag, separated by an equals sign (=). You can specify more than one tag to remove. Type: String Default: None Required: Yes Example: --tag "stack=Production"

### Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information for tags that were deleted:

- The TAG identifier
- The resource type identifier
- The ID of the resource
- The tag key
- The tag value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example deletes the tags for the AMI with the ID `ami-1a2b3c4d`. First, get a list of the tags using the following command.

```
PROMPT> ec2-describe-tags --filter "resource-id=ami-1a2b3c4d"
TAG ami-1a2b3c4d image webserver
TAG ami-1a2b3c4d image stack Production
```

Next, delete the tags.

```
PROMPT> ec2-delete-tags ami-1a2b3c4d --tag webserver --tag "stack=Production"
```

It's optional to specify the value for any tag with a value. If you specify a value for the key, the tag is deleted only if the tag's value matches the one you specified. If you specify the empty string as the value, the tag is deleted only if the tag's value is the empty string. The following example specifies the empty string as the value for the tag to delete (notice the equals sign after `Owner`).

```
PROMPT> ec2-delete-tags snap-4dfg39a --tag "Owner="
```

## Example 2

This example command deletes the `stack` tag from two particular instances.

```
PROMPT> ec2-delete-tags i-5f4e3d2a i-12345678 --tag stack
```

## Example 3

You can specify a tag key without a corresponding tag value if you want to delete the tag regardless of its value. This example command deletes all tags for the specified resources that have a key of `Purpose`, regardless of the tag value.

```
PROMPT> ec2-delete-tags i-5f4e3d2a i-4d5h8a9b i-1d3d4fae --tag Purpose
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteTags](#)

### Related Commands

- [ec2-create-tags \(p. 177\)](#)
- [ec2-describe-tags \(p. 457\)](#)

## ec2-delete-volume

### Description

Deletes the specified Amazon EBS volume. The volume must be in the `available` state (not attached to an instance). For more information, see [Amazon Elastic Block Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

#### Note

The volume remains in the `deleting` state for several minutes after you run this command.

The short version of this command is **ec2delvol**.

#### Tip

If you are using the AWS CLI, see [delete-volume](#) instead.

## Syntax

`ec2-delete-volume` *volume\_id*

## Options

Name	Description
<i>volume_id</i>	The ID of the volume. Type: String Default: None Required: Yes Example: vol-4282672b

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
-H, --headers	Includes column headers in the command output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Omits tags for tagged resources.
--debug	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
-D, --auth-dry-run	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
-v, --verbose	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
-	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
-?, --help, -h	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VOLUME identifier
- The ID of the volume that was deleted

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the volume with the ID `vol-1a2b3c4d`.

```
PROMPT> ec2-delete-volume vol-1a2b3c4d  
VOLUME vol-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVolume](#)

### Related Commands

- [ec2-attach-volume](#) (p. 66)
- [ec2-create-volume](#) (p. 180)
- [ec2-describe-volumes](#) (p. 470)
- [ec2-detach-volume](#) (p. 521)

## ec2-delete-vpc

### Description

Deletes the specified VPC. You must detach or delete all gateways and resources that are associated with the VPC before you can delete it. For example, you must terminate all instances running in the VPC, delete all security groups associated with the VPC (except the default one), delete all route tables associated with the VPC (except the default one), and so on.

The short version of this command is **ec2delvpc**.

#### Tip

If you are using the AWS CLI, see [delete-vpc](#) instead.



## Syntax

`ec2-delete-vpc` *vpc\_id*

## Options

Name	Description
<i>vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: vpc-1a2b3c4d

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPC identifier
- The ID of the VPC

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the specified VPC.

```
PROMPT> ec2-delete-vpc vpc-1a2b3c4d  
VPC vpc-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpc](#)

### Related Commands

- [ec2-create-vpc \(p. 186\)](#)
- [ec2-describe-vpcs \(p. 497\)](#)

## ec2-delete-vpc-endpoints

### Description

Deletes one or more specified VPC endpoints. Deleting the endpoint also deletes the endpoint routes in the route tables that were associated with the endpoint.

The short version of this command is **ec2delvpce**.

#### Tip

If you are using the AWS CLI, see [delete-vpc-endpoints](#) instead.

### Syntax

```
ec2-delete-vpc-endpoints vpce
```

## Options

Name	Description
<code>vpce</code>	One or more endpoint IDs. Type: String Default: None Required: Yes Example: vpce-111bbb22

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns no output.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example deletes endpoints `vpce-aa22bb33` and `vpce-1a2b3c4d`.

```
PROMPT> ec2-delete-vpc-endpoints vpce-aa22bb33 vpce-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpcEndpoints](#)

### Related Commands

- [ec2-create-vpc-endpoint](#) (p. 190)
- [ec2-describe-prefix-lists](#) (p. 390)
- [ec2-describe-vpc-endpoints](#) (p. 484)
- [ec2-describe-vpc-endpoint-services](#) (p. 488)
- [ec2-modify-vpc-endpoint](#) (p. 613)

## ec2-delete-vpc-peering-connection

### Description

Deletes a VPC peering connection. Either the owner of the requester VPC or the owner of the peer VPC can delete the VPC peering connection if it's in the `active` state. The owner of the requester VPC can delete a VPC peering connection in the `pending-acceptance` state.

#### Note

To reject a VPC peering connection request that's pending your approval, use the [ec2-reject-vpc-peering-connection](#) (p. 633) command.

The short version of this command is `ec2delpcx`.

#### Tip

If you are using the AWS CLI, see [delete-vpc-peering-connection](#) instead.

## Syntax

`ec2-delete-vpc-peering-connection` *vcp\_peering\_connection*

## Options

Name	Description
<i>vcp_peering_connection</i>	The VPC peering connection ID. Type: String Default: None Required: Yes Example: pcx-1a2b3c4d

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds.

Option	Description
	Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns true if the operation succeeds, or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.



## Examples

### Example 1

This example deletes the specified VPC peering connection.

```
PROMPT> ec2-delete-vpc-peering-connection pcx-1a2b3c4d  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpcPeeringConnection](#)

### Related Commands

- [ec2-accept-vpc-peering-connection](#) (p. 34)
- [ec2-describe-vpc-peering-connections](#) (p. 491)
- [ec2-create-vpc-peering-connection](#) (p. 194)
- [ec2-reject-vpc-peering-connection](#) (p. 633)
- [ec2-create-route](#) (p. 159)
- [ec2-replace-route](#) (p. 647)

## ec2-delete-vpn-connection

### Description

Deletes the specified VPN connection.

If you're deleting the VPC and its associated components, we recommend that you detach the virtual private gateway from the VPC and delete the VPC before deleting the VPN connection.

Another reason to delete the VPN connection is if you believe that the tunnel credentials for your VPN connection have been compromised. In that situation, you can delete the VPN connection and create a new one that has new keys, without needing to delete the VPC or virtual private gateway. If you create a new VPN connection, you must reconfigure the customer gateway using the new configuration information returned with the new VPN connection ID.

For more information about VPN connections, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2delvpn**.

**Tip**

If you are using the AWS CLI, see [delete-vpn-connection](#) instead.

## Syntax

**ec2-delete-vpn-connection** *vpn\_connection\_id*

## Options

Name	Description
<i>vpn_connection_id</i>	The ID of the VPN connection. Type: String Default: None Required: Yes Example: vpn-44a8938f

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>

Option	Description
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPNCONNECTION identifier
- The ID of the VPN connection

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the specified VPN connection.

```
PROMPT> ec2-delete-vpn-connection vpn-44a8938f
VPNCONNECTION vpn-44a8938f
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpnConnection](#)

### Related Commands

- [ec2-create-vpn-connection \(p. 198\)](#)
- [ec2-delete-vpc \(p. 261\)](#)
- [ec2-describe-vpn-connections \(p. 501\)](#)
- [ec2-detach-vpn-gateway \(p. 525\)](#)

## ec2-delete-vpn-connection-route

### Description

Deletes the specified static route associated with a VPN connection between an existing virtual private gateway and a VPN customer gateway. The static route allows traffic to be routed from the virtual private gateway to the VPN customer gateway.

The short version of this command is **ec2dvcr**.

**Tip**

If you are using the AWS CLI, see [delete-vpn-connection-route](#) instead.

## Syntax

```
ec2-delete-vpn-connection-route --vpn-connection vpn_connection_id --cidr cidr_block
```

## Options

Name	Description
<code>--vpn-connection</code> <i>vpn_connection_id</i>	The ID of the VPN connection. Type: String Default: None Required: Yes
<code>--cidr</code> <i>cidr_block</i>	The CIDR block associated with the local subnet of the customer network. Type: String Default: None Required: Yes

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns true if the operation succeeds or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes a static route to the destination CIDR block `11.12.0.0/16` associated with the VPN connection with the ID `vpn-83ad48ea`.

```
PROMPT> ec2-delete-vpn-connection-route--cidr "11.12.0.0/16" --vpn-connection
vpn-83ad48ea
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpnConnectionRoute](#)

## ec2-delete-vpn-gateway

### Description

Deletes the specified virtual private gateway. We recommend that before you delete a virtual private gateway, you detach it from the VPC and delete the VPN connection. Note that you don't need to delete the virtual private gateway if you plan to delete and recreate the VPN connection between your VPC and your network.

The short version of this command is `ec2delvgw`.

#### Tip

If you are using the AWS CLI, see [delete-vpn-gateway](#) instead.

## Syntax

`ec2-delete-vpn-gateway` *vpn\_gateway\_id*

## Options

Name	Description
<i>vpn_gateway_id</i>	The ID of the virtual private gateway. Type: String Default: None Required: Yes Example: vgw-8db04f81

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds.



Option	Description
	Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPNGATEWAY identifier

- The ID of the virtual private gateway

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deletes the specified virtual private gateway.

```
PROMPT> ec2-delete-vpn-gateway vgw-8db04f81  
VPNGATEWAY vgw-8db04f81
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeleteVpnGateway](#)

### Related Commands

- [ec2-create-vpn-gateway](#) (p. 205)
- [ec2-delete-vpn-connection](#) (p. 270)
- [ec2-describe-vpn-gateways](#) (p. 507)

## ec2-deregister

### Description

Deregisters the specified AMI. After you deregister an AMI, it can't be used to launch new instances.

#### Note

This command does not delete the AMI. To delete the AMI, use [ec2-delete-bundle](#) for instance store-backed AMIs, or [ec2-delete-snapshot](#) (p. 246) for Amazon EBS-backed AMIs.

The short version of this command is **ec2dereg**.

#### Tip

If you are using the AWS CLI, see [deregister-image](#) instead.

## Syntax

`ec2-deregister` *ami\_id*

## Options

Name	Description
<i>ami_id</i>	The ID of the AMI. Type: String Default: None Required: Yes Example: ami-4fa54026

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds.

Option	Description
	Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The IMAGE identifier

- The ID of the AMI

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command deregisters the specified AMI.

```
PROMPT> ec2-deregister ami-1a2b3c4d  
IMAGE ami-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DeregisterImage](#)

### Related Commands

- [ec2-describe-images \(p. 329\)](#)
- [ec2-register \(p. 626\)](#)

## ec2-describe-account-attributes

### Description

Describes the specified attribute of your AWS account.

The short version of this command is **ec2daa**.

#### Tip

If you are using the AWS CLI, see [describe-account-attributes](#) instead.

### Syntax

```
ec2-describe-account-attributes { supported-platforms | default-vpc }
```

## Options

Name	Description
supported-platforms	Indicates whether your account can launch instances into EC2-Classic and EC2-VPC, or only into EC2-VPC. For more information, see <a href="#">Supported Platforms</a> . Required: No
default-vpc	The ID of the default VPC for your account, or none. For more information, see <a href="#">Your Default VPC and Subnets</a> . Required: No

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.

Option	Description
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ACCOUNTATTRIBUTE identifier
- The attribute name
- The VALUE identifier
- The attribute value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the platforms that are supported by your AWS account.

```
PROMPT> ec2-describe-account-attributes supported-platforms
```

The following is example output for an account that must launch instances into a VPC, such as the default VPC.

```
ACCOUNTATTRIBUTE supported-platforms  
VALUE EC2-VPC
```

The following is example output for an account that can launch instances into EC2-Classic or into a VPC.

```
ACCOUNTATTRIBUTE supported-platforms  
VALUE EC2-Classic  
VALUE EC2-VPC
```

### Example 2

This example command describes the ID of the default VPC.

```
PROMPT> ec2-describe-account-attributes default-vpc
```

The following is example output for an account with a default VPC.

```
ACCOUNTATTRIBUTE default-vpc  
VALUE vpc-1a2b3c4d
```

The following is example output for an account without a default VPC.

```
ACCOUNTATTRIBUTE default-vpc  
VALUE none
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.



## Related Action

- [DescribeAccountAttributes](#)

# ec2-describe-addresses

## Description

Describes one or more of your Elastic IP addresses.

An Elastic IP address is for use in either the EC2-Classic platform or in a VPC. For more information, see [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2daddr**.

### Tip

If you are using the AWS CLI, see [describe-addresses](#) instead.

## Syntax

```
ec2-describe-addresses [public_ip ... | allocation_id ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>public_ip</i>	[EC2-Classic] One or more Elastic IP addresses. Type: String Default: Describes all your Elastic IP addresses. Required: No Example: 198.51.100.1
<i>allocation_id</i>	[EC2-VPC] One or more allocation IDs. Type: String Default: Describes all your Elastic IP addresses. Required: No Example: eipalloc-9558a4fc
-F, --filter <i>name=value</i>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your Elastic IP addresses, or only those you specified. Required: No Example: --filter "instance-id=i-1a2b3c4d"

## Supported Filters

You can specify filters so that the response includes information for only certain Elastic IP addresses. For example, you can use a filter to specify that you're interested in addresses that have a specific tag. You can specify multiple values for a filter. The response includes information for an address only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify addresses of a specific value that have a specific tag. The response includes information for an address only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`domain`

Indicates whether the address is for use in a VPC.

Type: String

Valid values: `standard` | `vpc`

`instance-id`

The instance the address is associated with (if any).

Type: String

`public-ip`

The Elastic IP address.

Type: String

`allocation-id`

The allocation ID for the address (VPC only).

Type: String

`association-id`

The association ID for the address (VPC only).

Type: String

`network-interface-id`

The network interface (if any) that the address is associated with (VPC only).

Type: String

`network-interface-owner-id`

The owner ID.

Type: String

`private-ip-address`

The private IP address associated with the Elastic IP address (VPC only).

Type: String

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The ADDRESS identifier
- The Elastic IP address
- The ID of the instance to which the IP address is associated, if any
- The domain of the Elastic IP address (*standard* or *vpc*)
- [EC2-VPC] The allocation ID
- [EC2-VPC] The association ID
- [EC2-VPC] The private IP address associated with the Elastic IP address

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the Elastic IP address 192.0.2.1, which is assigned to an instance in EC2-Classic with the ID i-f15ebb98.

```
PROMPT> ec2-describe-addresses 192.0.2.1  
ADDRESS 192.0.2.1 i-f15ebb98 standard
```

### Example 2

This example command describes the Elastic IP address with the allocation ID eipalloc-282d9641, which is assigned to an instance in EC2-VPC with the ID i-7a00642.

```
PROMPT> ec2-describe-addresses eipalloc-9258a4fb
```

Type	Address	Instance	Domain	AllocationId
AssociationId		NetworkInterfaceID		
PrivateIP	ADDRESS 203.0.113.0	i-7a00642e	vpc	eipalloc-282d9641
	eipassoc-252d964c	eni-d83388b1	10.0.0.14	4

### Example 3

This example command describes all your Elastic IP addresses (for both platforms).

```
PROMPT> ec2-describe-addresses
ADDRESS 203.0.113.12 i-f15ebb98 standard
ADDRESS 203.0.113.22 i-9e9da4e9 vpc eipalloc-9258a4fb
eipassoc-0659a56f
ADDRESS 203.0.113.32 vpc eipalloc-9558a4fc
```

### Example 4

This example command describes your Elastic IP addresses for EC2-VPC only.

```
PROMPT> ec2-describe-addresses --filter "allocation-id=*" -H
ec2-describe-addresses -H
Type Address Instance Domain AllocationId
AssociationId NetworkInterfaceID
PrivateIP ADDRESS 203.0.113.10 vpc eipalloc-1b5fe072
eipassoc-eb5fe082 eni-0689366f 10.0.1.35
ADDRESS 203.0.113.20 i-c844219c vpc eipalloc-b463dcdd
eipassoc-d218a3bb eni-ea67dc83 10.0.0.174
ADDRESS 203.0.113.140 i-ba6a0d vpc eipalloc-1266dd7b
eipassoc-39e15b50 eni-73e05a1a 10.0.0.85
ADDRESS 203.0.113.140 i-7a00642 vpc eipalloc-f38a359a
eipassoc-1f239876 eni-d83388b1 10.0.0.12
ADDRESS 203.0.113.177 i-7a00642e vpc eipalloc-282d9641
eipassoc-252d964c eni-d83388b1 10.0.0.14
```

### Example 5

This example command describes the Elastic IP address associated with a particular private IP address in EC2-VPC.

```
PROMPT> ec2-describe-addresses --filter "private-ip-address=10.0.0.94"
ADDRESS 203.0.113.155 vpc eipalloc-fdfc4394 eipassoc-52fa453b
eni-66fc430f 10.0.0.94
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DescribeAddresses](#)

## Related Commands

- [ec2-allocate-address](#) (p. 37)
- [ec2-associate-address](#) (p. 45)
- [ec2-disassociate-address](#) (p. 534)
- [ec2-release-address](#) (p. 636)

# ec2-describe-availability-zones

## Description

Describes one or more of the Availability Zones that are available to you. The results include Availability Zones only for the region you're currently using. If there is an event impacting an Availability Zone, you can use this command to view the state and any provided message for that Availability Zone. For more information, see [Regions and Availability Zones](#).

### Note

Availability Zones are not the same across accounts. The Availability Zone us-east-1a for account A is not necessarily the same as us-east-1a for account B. Availability Zone assignments are mapped independently for each account.

The short version of this command is **ec2daz**.

### Tip

If you are using the AWS CLI, see [describe-availability-zones](#) instead.

## Syntax

```
ec2-describe-availability-zones [zone_name ...] [--filter "name=value" ...]
```

## Options

Name	Description
<i>zone_name</i>	One or more Availability Zone names. Type: String Default: Describes all Availability Zones in the region. Required: No Example: us-east-1a
<i>-F, --filter name=value</i>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String

Name	Description
	<p>Default: Describes all Availability Zones in the region, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "region-name=ap-southeast-1"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain Availability Zones. For example, you can use a filter to specify that you're interested in Availability Zones in the `available` state. You can specify multiple values for a filter. The response includes information for an Availability Zone only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify Availability Zones that are in a particular region and are in the `available` state. The response includes information for an Availability Zone only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`message`

Information about the Availability Zone.

Type: String

`region-name`

The region for the Availability Zone (for example, `us-east-1`).

Type: String

`state`

The state of the Availability Zone

Type: String

Valid values: `available` | `information` | `impaired` | `unavailable`

`zone-name`

The name of the zone.

Type: String

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and



X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information for each Availability Zone retrieved:

- The AVAILABILITYZONE identifier
- The name of the Availability Zone
- The state of the Availability Zone
- The region that the Availability Zone belongs to
- Any messages associated with the Availability Zone

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the Availability Zones that are available to you. The output includes Availability Zones only for the current region.

```
PROMPT> ec2-describe-availability-zones
AVAILABILITYZONE us-east-1a available us-east-1
AVAILABILITYZONE us-east-1b available us-east-1
AVAILABILITYZONE us-east-1c available us-east-1
```

### Example 2

This example command describes the Availability Zones that are available to you in the `us-east-1` region.

```
PROMPT> ec2-describe-availability-zones --region us-east-1
AVAILABILITYZONE us-east-1a available us-east-1
AVAILABILITYZONE us-east-1b available us-east-1
AVAILABILITYZONE us-east-1c available us-east-1
```

```
AVAILABILITYZONE us-east-1d available us-east-1
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeAvailabilityZones](#)

### Related Commands

- [ec2-describe-regions \(p. 394\)](#)
- [ec2-run-instances \(p. 693\)](#)

## ec2-describe-bundle-tasks

### Description

Describes one or more of your bundling tasks.

#### Note

Completed bundle tasks are listed for only a limited time. If your bundle task is no longer in the list, you can still register an AMI from it. Just use the `ec2-register` command with the Amazon S3 bucket name and image manifest name you provided to the bundle task.

The short version of this command is **ec2dbun**.

#### Tip

If you are using the AWS CLI, see [describe-bundle-tasks](#) instead.

### Syntax

```
ec2-describe-bundle-tasks [bundle ...] [--filter "name=value"] ...]
```

### Options

Name	Description
<i>bundle</i>	One or more bundle task IDs. Type: String Default: Describes all your bundle tasks. Required: No Example: bun-cla432a3

Name	Description
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`").</p> <p>Type: String</p> <p>Default: Describes all your bundle tasks, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "state=pending"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain bundle tasks. For example, you can use a filter to specify that you're interested in the bundle tasks in the `complete` state. You can specify multiple values for a filter. The response includes information for a bundle task only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify bundles that are stored in a specific Amazon S3 bucket and are in the `complete` state. The response includes information for a bundle task only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon?\` searches for the literal string `*amazon?`.

The following are the available filters.

`bundle-id`

The ID of the bundle task.

Type: String

`error-code`

If the task failed, the error code returned.

Type: String

`error-message`

If the task failed, the error message returned.

Type: String

`instance-id`

The ID of the instance that was bundled.

Type: String

`progress`

The level of task completion, as a percentage (for example, 20%).

Type: String

`s3-bucket`

The Amazon S3 bucket to store the AMI.

Type: String

s3-prefix  
The beginning of the AMI name.  
Type: String

start-time  
The time the task started (for example, 2008-09-15T17:15:20.000Z).  
Type: DateTime

state  
The state of the task.  
Type: String  
Valid values: pending | waiting-for-shutdown | bundling | storing | cancelling | complete | failed

update-time  
The time of the most recent update for the task (for example, 2008-09-15T17:15:20.000Z).  
Type: DateTime

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>

Option	Description
<code>--request-timeout</code> <code>timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The BUNDLE identifier
- The ID of the bundle
- The ID of the instance
- The bucket name
- The prefix
- The start time
- The update time
- The current state (pending, waiting-for-shutdown, bundling, storing, cancelling, complete, failed)
- The progress as a percentage if state is bundling

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the status of the specified bundle task.

```
PROMPT> ec2-describe-bundle-tasks bun-c1a540a8
BUNDLE bun-c1a540a8 i-2674d22r myawsbucket winami
2008-09-15T17:15:20.000Z 2008-09-15T17:15:20.000Z bundling 3%
```

### Example 2

This example filters the response to include only bundle tasks whose state is either `complete` or `failed`, and in addition are targeted for the Amazon S3 bucket named `myawsbucket`.

```
PROMPT> ec2-describe-bundle-tasks --filter "s3-bucket=myawsbucket" --filter
"state=complete" --filter "state=failed"
BUNDLE bun-1a2b3c4d i-8765abcd myawsbucket linuxami
2008-09-14T08:32:43.000Z 2008-09-14T08:32:43.000Z complete
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeBundleTasks](#)

## Related Commands

- [ec2-bundle-instance](#) (p. 79)
- [ec2-cancel-bundle-task](#) (p. 84)

# ec2-describe-classic-link-instances

## Description

Describes one or more of your linked EC2-Classic instances. This command only returns information about EC2-Classic instances linked to a VPC through ClassicLink; you cannot use this command to return information about other instances.

The short version of this command is **ec2dcli**.

### Tip

If you are using the AWS CLI, see [describe-classic-link-instances](#) instead.

## Syntax

```
ec2-describe-classic-link-instances [instance_id ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Must be instances linked to a VPC through ClassicLink.  Type: String  Default: Describes all of your ClassicLink instances.  Required: No  Example: i-1a2b3c4d
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`").  Type: String  Default: Describes all of your ClassicLink instances.  Required: No  Example: --filter "instance-id=i-1a2b3c4d"

## Supported Filters

You can specify filters so that the response includes information for only certain ClassicLink instances. For example, you can use a filter to specify that you're interested in ClassicLink instances linked to a specific VPC. You can specify multiple values for a filter. The response includes information for a ClassicLink instance only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify ClassicLink instances with a specific tag that are attached to a specific VPC. The response includes information for a ClassicLink instance only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

### `group-id`

The ID of a VPC's security group that's associated with the instance.

Type: String

### `instance-id`

The ID of the instance.

Type: String

### `tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

### `tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

### `tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

### `vpc-id`

The ID of the VPC that the instance is linked to.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.



Option	Description
	Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>

Option	Description
-?, --help, -h	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information for each instance:

- The security groups associated with the instance
- The instance ID
- The VPC ID
- Any tags associated with the instance

Amazon EC2 command line tools display errors on stderr.

## Example

### Example 1

This example lists all of your linked EC2-Classic instances.

```
PROMPT> ec2-describe-classic-link-instances
INSTANCE i-123abc12 vpc-04487654
GROUP sg-1ab3c4d
TAG instance 1-123abc12 Name MyInstance
```

### Example 2

This example lists all of your linked EC2-Classic instances, and filters the response to include only instances that are linked to VPC vpc-1a2b3c4d.

```
PROMPT> ec2-describe-classic-link-instances --filter "vpc-id=vpc-1a2b3c4d"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeClassicLinkInstances](#)

### Related Commands

- [ec2-disable-vpc-classic-link \(p. 531\)](#)
- [ec2-enable-vpc-classic-link \(p. 547\)](#)
- [ec2-attach-classic-link-vpc \(p. 56\)](#)
- [ec2-detach-classic-link-vpc \(p. 512\)](#)
- [ec2-describe-vpc-classic-link \(p. 480\)](#)

## ec2-describe-conversion-tasks

### Description

Describes one or more of your conversion tasks.

The short version of this command is **ec2dct**.

#### Tip

If you are using the AWS CLI, see [describe-conversion-tasks](#) instead.

### Syntax

```
ec2-describe-conversion-tasks [task_id ...] [--show-transfer-details]
```

### Options

Name	Description
<i>task_id</i>	One or more conversion task IDs. Type: String Default: Describes all your conversion tasks. Required: No Example: import-i-ffvko9js

Name	Description
<code>--show-transfer-details</code>	Any additional details for uploading the disk image. The <code>ec2-upload-disk-image</code> command automatically returns this information. Required: No Example: <code>--show-transfer-details</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the following information:

- Information about the task, such as the task ID, task type, expiration, status, and number of bytes received
- Information about the image, such as the image size, format, volume ID, and volume size

Amazon EC2 command line tools display errors on `stderr`.

## Example

### Example

This example command shows the status of your import instance task.

```
PROMPT> ec2-describe-conversion-tasks import-i-ffvko9js
```

### Example

This example command shows the status of your import instance task import-i-ffvko9js in the us-east-1 region.

```
PROMPT> ec2-describe-conversion-tasks --region us-east-1 import-i-ffvko9js
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeConversionTasks](#)

### Related Commands

- [ec2-cancel-conversion-task \(p. 87\)](#)
- [ec2-delete-disk-image \(p. 214\)](#)
- [ec2-import-instance \(p. 560\)](#)
- [ec2-import-volume \(p. 571\)](#)
- [ec2-resume-import \(p. 684\)](#)

## ec2-describe-customer-gateways

### Description

Describes one or more of your customer gateways.

For more information about VPN customer gateways, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2dcgw**.

**Tip**

If you are using the AWS CLI, see [describe-customer-gateways](#) instead.

## Syntax

```
ec2-describe-customer-gateways [ customer_gateway_id ... ] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>customer_gateway_id</i>	One or more customer gateway IDs. Type: String Default: Describes all your customer gateways. Required: No Example: cgw-b4dc3961
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample"). Type: String Default: Describes all your customer gateways, or only those you specified. Required: No Example: --filter "tag-key=Production"

## Supported Filters

You can specify filters so that the response includes information for only certain customer gateways. For example, you can use a filter to specify that you're interested in customer gateways in the `pending` or `available` state. You can specify multiple values for a filter. The response includes information for a customer gateway only if it matches at least one of the of the filter values that you specified.

You can specify multiple filters; for example, specify customer gateways that have a specific IP address for the Internet-routable external interface and are in the `pending` or `available` state. The response includes information for a customer gateway only if it matches all the filters that you specified. If there's no match, no special message is returned, the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`bgp-asn`

The customer gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN).

Type: String

`customer-gateway-id`  
The ID of the customer gateway.  
Type: String

`ip-address`  
The IP address of the customer gateway's Internet-routable external interface (for example, 12.1.1.2.3).  
Type: String

`state`  
The state of the customer gateway.  
Type: String  
Valid values: pending | available | deleting | deleted

`type`  
The type of customer gateway. Currently, the only supported type is `ipsec.1`.  
Type: String  
Valid values: `ipsec.1`

`tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

`tag-value`  
The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.  
Type: String

`tag:key=value`  
The key/value combination of a tag assigned to the resource.  
Example: To list the resources with the tag `Purpose=X`, use:  
`--filter tag:Purpose=X`  
Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:  
`--filter tag:Purpose=X --filter tag:Purpose=Y`

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .



Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The CUSTOMERGATEWAY identifier
- The ID of the customer gateway
- The state of the customer gateway (`pending`, `available`, `deleting`, `deleted`)
- The type of VPN connection the customer gateway supports (`ipsec.1`)
- The Internet-routable IP address of the customer gateway's outside interface
- The customer gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN)
- Any tags assigned to the customer gateway

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the specified customer gateway.

```
PROMPT> ec2-describe-customer-gateways cgw-b4dc3961
CUSTOMERGATEWAY cgw-b4dc3961 available ipsec.1 12.1.2.3 65534
```

### Example 2

This example command uses filters to describe any customer gateway you own whose IP address is 12.1.2.3, and whose state is either `pending` or `available`.

```
PROMPT> ec2-describe-customer-gateways --filter "ip-address=12.1.2.3" --
filter "state=pending" --filter "state=available"
CUSTOMERGATEWAY cgw-b4dc3961 available ipsec.1 12.1.2.3 65534
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeCustomerGateways](#)

### Related Commands

- [ec2-create-customer-gateway](#) (p. 112)
- [ec2-delete-customer-gateway](#) (p. 208)

## ec2-describe-dhcp-options

### Description

Describes one or more of your DHCP options sets.

For more information, see [DHCP Options Sets](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2ddopt**.

#### Tip

If you are using the AWS CLI, see [describe-dhcp-options](#) instead.

### Syntax

```
ec2-describe-dhcp-options [ dhcp_options_id ... ] [--filter  
"name=value"] ...]
```

### Options

Name	Description
<i>dhcp_options_id</i>	The IDs of one or more DHCP options sets. Type: String Default: Describes all your DHCP options sets. Required: No Example: dopt-7a8b9c2d

Name	Description
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample").</p> <p>Type: String</p> <p>Default: Describes all your DHCP options sets, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "tag-key=Production"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain sets of DHCP options. For example, you can use a filter to specify that you're interested in sets of DHCP options with a particular value for the `domain-name` option. You can specify multiple values for a filter. The response includes information for a set of DHCP options only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify sets of DHCP options that have a specific value for the `domain-name` option and a specific tag. The response includes information for a set of DHCP options only if it matches all the filters that you specified. If there's no match, no special message is returned, the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`dhcp-options-id`

The ID of a set of DHCP options.

Type: String

`key`

The key for one of the options (for example, `domain-name`).

Type: String

`value`

The value for one of the options.

Type: String

`tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:*key=value*

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag Purpose=X, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag Purpose=X or the tag Purpose=Y, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The DHCPOPTIONS identifier
- The ID of the DHCP options set
- The name and values for each option in the set
- Any tags assigned to the set

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the specified DHCP options set.

```
PROMPT> ec2-describe-dhcp-options dopt-7a8b9c2d  
DHCOPTIONS dopt-7a8b9c2d  
OPTION domain-name mydomain.com  
OPTION domain-name-servers 10.2.5.1,10.2.5.2
```

### Example 2

This example command uses filters to describe any DHCP options set that includes a `domain-name` option whose value includes the string `example`.

```
PROMPT> ec2-describe-dhcp-options --filter "key=domain-name" --filter  
"value=*example*"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeDhcpOptions](#)

### Related Commands

- [ec2-associate-dhcp-options \(p. 49\)](#)
- [ec2-create-dhcp-options \(p. 115\)](#)
- [ec2-delete-dhcp-options \(p. 211\)](#)

## ec2-describe-export-tasks

### Description

Describes one or more of your export tasks, including the most recent canceled and completed tasks.

The short version of this command is **ec2dxt**.

**Tip**

If you are using the AWS CLI, see [describe-export-tasks](#) instead.

## Syntax

`ec2-describe-export-tasks [ task_id ... ]`

## Options

Name	Description
<i>task_id</i>	One or more export task IDs. These are returned by <code>ec2-create-instance-export-task</code> . Type: String Default: Describes all your export tasks. Required: No

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout <i>timeout</i></code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>



Option	Description
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns information about the export task including:

- The EXPORTTASK identifier
- The ID of the task
- The status of the task
- The export progress

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the export task with the ID `export-i-fgelt0i7`.

```
PROMPT> ec2-describe-export-tasks export-i-fgelt0i7  
EXPORTTASK    export-i-fgelt0i7    active    i-81428ee7    vmware    vmdk  
myexportbucket    export-i-fgelt0i7.vmdk
```

### Example

This example command describes the export task with the ID `export-i-fgelt0i7` in the `us-west-2` region.

```
PROMPT> ec2-describe-export-tasks --region us-west-2 export-i-fgelt0i7  
EXPORTTASK    export-i-fgelt0i7    active    i-81428ee7    vmware    vmdk  
myexportbucket    export-i-fgelt0i7.vmdk
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeExportTasks](#)

### Related Commands

- [ec2-cancel-export-task \(p. 91\)](#)
- [ec2-create-instance-export-task \(p. 129\)](#)

## ec2-describe-group

### Description

Describes one or more of your security groups.

A security group is for use with instances either in the EC2-Classic platform or in a specific VPC. For more information, see [Amazon EC2 Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances* and [Security Groups for Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2dgrp**.

#### Tip

If you are using the AWS CLI, see [describe-security-groups](#) instead.

### Syntax

```
ec2-describe-group [ec2_group_name_or_id | vpc_group_id ...] [--filter "name=value"] ...]
```

### Options

Name	Description
<i>ec2_group_name_or_id</i> or <i>vpc_group_id</i>	EC2-Classic, default VPC: One or more security group names or IDs.  Nondefault VPC: One more security group IDs. Type: String Default: Describes all your security groups. Required: No Example: webserv
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your security groups, or only those you specified. Required: No Example: --filter "group-name=*webserver*"

### Supported Filters

You can specify filters so that the response includes information for only certain security groups. For example, you can use a filter to specify that you're interested in groups whose name contains a specific string. You can specify multiple values for a filter. The response includes information for a security group only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify group's whose name contains a specific string, and that give permission to another security group with a different string in its name. The response includes information for a group only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

### Important

Filters are based on literal strings only. This is important to remember when you want to use filters to return only security groups with access allowed on a specific port number or numbers. For example, suppose that you want to get all groups that have access on port 22, and that GroupA gives access on a range of ports using `fromPort=20` and `toPort=30`. If you filter with `ip-permission.from-port=22` or `ip-permission.to-port=22` (or both), the response does not contain information for GroupA. You get information for GroupA only if you specify `ip-permission.from-port=20` or `ip-permission.to-port=30` (or both).

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`description`

The description of the security group.

Type: String

`egress.ip-permission.prefix-list-id`

The ID of the prefix list of the AWS service to which the security group allows access.

Type: String

`group-id`

The ID of the security group.

Type: String

`group-name`

The name of the security group.

Type: String

`ip-permission.cidr`

A CIDR range that has been granted permission.

Type: String

`ip-permission.from-port`

The start of the port range for the TCP and UDP protocols, or an ICMP type number.

Type: String

`ip-permission.group-id`

The ID of a security group that has been granted permission.

Type: String

`ip-permission.group-name`

The name of a security group that has been granted permission.

Type: String

`ip-permission.protocol`

The IP protocol for the permission.

Type: String

Valid values: `tcp` | `udp` | `icmp` or a protocol number

`ip-permission.to-port`

The end of the port range for the TCP and UDP protocols, or an ICMP code.

Type: String

`ip-permission.user-id`

The ID of an AWS account that has been granted permission.

Type: String  
**owner-id**  
 The AWS account ID of the owner of the security group.  
 Type: String  
**tag-key**  
 The key of a tag assigned to the security group.  
 Type: String  
**tag-value**  
 The value of a tag assigned to the security group.  
 Type: String  
**vpc-id**  
 The ID of the VPC specified when the security group was created.  
 Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

A line containing the group information

- The GROUP identifier

- The ID of the security group
- The AWS account ID of the owner of the security group
- The name of the security group
- A description of the security group
- [EC2-VPC] The ID of the VPC the group belongs to

One of each of the following lines for each permission defined by the group:

- The PERMISSION identifier
- The AWS account ID of the owner of the security group
- The name of the security group granting permission
- The type of rule. Currently, only `ALLOWS` rules are supported
- The protocol to allow (for example, `tcp` and `udp`)
- The start of port range
- The end of port range
- FROM for an ingress rule or TO for an egress rule
- The source type (for ingress rules) or destination type (for egress rules)
- The source (for ingress rules) or destination (for egress rules)
- [USER only] The name of the source or destination entity
- [USER only] The ID of the security group
- Whether the rule is ingress rule or an egress rule

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command describes the security group for EC2-Classic named `StandardGroup`.

```
PROMPT> ec2-describe-group StandardGroup
GROUP sg-1a2b3c4d 111122223333 StandardGroup A standard EC2 group
PERMISSION 111122223333 StandardGroup ALLOWS tcp 80 80 FROM CIDR
  102.11.43.32/32 ingress
```

### Example 2

This example command describes the security group for EC2-VPC with the ID `sg-1a2b3c4d`.

```
PROMPT> ec2-describe-group sg-1a2b3c4d
GROUP sg-1a2b3c4d 111122223333 WebServerSG web servers vpc-1a2b3c4d
PERMISSION 111122223333 WebServerSG ALLOWS tcp 80 80 FROM CIDR 162.5.5.5/32
  ingress
PERMISSION 111122223333 WebServerSG ALLOWS tcp 80 80 FROM USER 111122223333
  NAME default ID sg-1a2b3c4d ingress
PERMISSION 111122223333 WebServerSG ALLOWS tcp 443 443 FROM USER 111122223333
  NAME default ID sg-1a2b3c4d ingress
PERMISSION 111122223333 WebServerSG ALLOWS all TO CIDR 0.0.0.0/0 egress
PERMISSION 111122223333 WebServerSG ALLOWS tcp 433 433 TO USER 111122223333
  NAME default ID sg-1a2b3c4d egress
```

## Example 3

This example describes all security groups that grant access over TCP specifically on port 22 from instances in either the `app_server_group` or `database_group`.

```
PROMPT> ec2-describe-group --filter "ip-permission.protocol=tcp"
--filter "ip-permission.from-port=22" --filter "ip-permission.to-port=22"
--filter "ip-permission.group-name=app_server_group" --filter "ip-
permission.group-name=database_group"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSecurityGroups](#)

### Related Commands

- [ec2-authorize \(p. 73\)](#)
- [ec2-create-group \(p. 119\)](#)
- [ec2-delete-group \(p. 218\)](#)
- [ec2-revoke \(p. 688\)](#)

# ec2-describe-image-attribute

## Description

Describes the specified attribute of the specified AMI. You can specify only one attribute at a time.

The short version of this command is `ec2dimatt`.

### Tip

If you are using the AWS CLI, see [describe-image-attribute](#) instead.

## Syntax

```
ec2-describe-image-attribute ami_id { -l | -p | -B | --kernel | --ramdisk |
--sriov }
```



## Options

Name	Description
<code>ami_id</code>	The ID of the AMI. Type: String Default: None Required: Yes Example: ami-4fa54026
<code>-l, --launch-permission</code>	The launch permissions of the AMI. Type: String Default: None Required: No Example: -l
<code>-p, --product-code</code>	The product codes associated with the AMI. Type: String Default: None Required: No Example: -p
<code>-B, --block-device-mapping</code>	The block device mapping for the AMI.  <b>Note</b> Depending on your account privileges, this parameter may return a <code>Client.AuthFailure</code> error. If this happens, use the <a href="#">ec2-describe-images (p. 329)</a> command to get information about the block device mapping for the AMI. Type: String Default: None Required: No Example: -B
<code>--kernel</code>	The ID of the kernel for the AMI. Type: String Default: None Required: No Example: --kernel
<code>--ramdisk</code>	The ID of the RAM disk for the AMI. Type: String Default: None Required: No Example: --ramdisk
<code>--sriov</code>	Enhanced networking for the AMI. A value of <code>simple</code> means that enhanced networking is enabled. Type: String Default: None Required: No Example: --sriov

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the AMI
- Information about the attribute

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the launch permissions for the specified AMI.

```
PROMPT> ec2-describe-image-attribute ami-1a2b3c4d -l
```

```
launchPermission ami-1a2b3c4d group all
launchPermission ami-1a2b3c4d userId 111122223333
```

## Example 2

This example command describes the product code for the specified AMI.

```
PROMPT> ec2-describe-image-attribute ami-1a2b3c4d -p
productCodes ami-1a2b3c4d productCode [marketplace: a1b2c3d4e5f6g7h8i9j10k11]
```

## Example 3

This example command describes the RAM disk for the AMI with the ID `ami-1a2b3c4d` using the `--show-empty-fields` option.

```
PROMPT> ec2-describe-image-attribute ami-1a2b3c4d --ramdisk --show-empty-
fields
ramdisk ami-1a2b3c4d (nil) ari-96c527ff
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeImageAttribute](#)

### Related Commands

- [ec2-describe-images](#) (p. 329)
- [ec2-modify-image-attribute](#) (p. 581)
- [ec2-reset-image-attribute](#) (p. 671)

## ec2-describe-images

### Description

Describes one or more of the images (AMIs, AKIs, and ARIs) available to you. Images available to you include public images, private images that you own, and private images owned by other AWS accounts but for which you have explicit launch permissions.

Launch permissions fall into three categories.

Launch Permission	Description
public	The owner of the image granted launch permissions for the image to the <code>all</code> group. All AWS accounts have launch permissions for these images.
explicit	The owner of the image granted launch permissions to a specific AWS account.
implicit	An AWS account has implicit launch permissions for all the images it owns.

The list of images returned can be modified by specifying IDs, owners, or AWS accounts with launch permissions. If no options are specified, Amazon EC2 returns all images for which you have launch permissions.

If you specify one or more image IDs, only images that have the specified IDs are returned. If you specify an image to which you don't have access, it's not included in the returned results.

If you specify one or more owners, only images from the specified owners and to which you have access are returned. The results can include the account IDs of the specified owners—`amazon` for images owned by Amazon, `aws-marketplace` for images owned by AWS Marketplace, or `self` for images that you own.

**Note**

For an overview of the AWS Marketplace, see [Introducing AWS Marketplace](#).

If you specify a list of users with launch permissions, only images with launch permissions for those users are returned. You can specify account IDs (if you own the images), `self` for images that you own or have explicit permissions for, or `all` for public images.

**Note**

Deregistered images are included in the returned results for an unspecified interval after deregistration.

The short version of this command is `ec2dim`.

**Tip**

If you are using the AWS CLI, see [describe-images](#) instead.

## Syntax

```
ec2-describe-images [ami_id ...] [-a] [-o owner ...] [-x user_id ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>ami_id</i>	One or more image IDs. Type: String Default: Describes all images available to you. Required: No Example: <code>ami-78a54011</code>
<code>-a, --all</code>	Describes all images available to you. Type: String Default: None Required: No Example: <code>-a</code>

Name	Description
<code>-o, --owner <i>owner</i></code>	<p>Describes images owned by the specified owners. Use the IDs <code>amazon</code>, <code>aws-marketplace</code>, and <code>self</code> to describe images owned by Amazon, AWS Marketplace, or you, respectively.</p> <p>Type: String</p> <p>Valid values: <code>amazon</code>   <code>aws-marketplace</code>   <code>self</code>   <i>AWS account ID</i>   <code>all</code></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-o self</code></p>
<code>-x, --executable-by <i>user_id</i></code>	<p>Describes images for which the specified user has explicit launch permissions. The user can be an AWS account ID, <code>self</code> to return images for which the sender of the request has explicit launch permissions, or <code>all</code> to return images with public launch permissions.</p> <p>Type: String</p> <p>Valid values: <code>all</code>   <code>self</code>   <i>AWS account ID</i></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-x self</code></p>
<code>-F, --filter <i>name=value</i></code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("<code>name=value example</code>"). On a Windows system, use quotation marks even without a space in the value string ("<code>name=valueexample</code>"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("<code>name=valueexample`</code>").</p> <p>Type: String</p> <p>Default: Describes all images available to you, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "tag-value=Production"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain images. For example, you can use a filter to specify that you're interested in images that use a specific kernel. You can specify multiple values for a filter. The response includes information for an image only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify images that use a specific kernel and use an Amazon EBS volume as the root device. The response includes information for an image only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`architecture`

The image architecture.

Type: String

Valid values: `i386` | `x86_64`

`block-device-mapping.delete-on-termination`

Whether the Amazon EBS volume is deleted on instance termination.

Type: Boolean

`block-device-mapping.device-name`

The device name (for example, `/dev/sdh`) for the Amazon EBS volume.

Type: String

`block-device-mapping.snapshot-id`

The ID of the snapshot used for the Amazon EBS volume.

Type: String

`block-device-mapping.volume-size`

The volume size of the Amazon EBS volume, in GiB.

Type: Integer

`block-device-mapping.volume-type`

The volume type of the Amazon EBS volume.

Type: String

Valid values: `gp2` for General Purpose SSD volumes, `io1` for Provisioned IOPS SSD volumes, and `standard` for Magnetic volumes.

`description`

The description of the image (provided during image creation).

Type: String

`image-id`

The ID of the image.

Type: String

`image-type`

The image type.

Type: String

Valid values: `machine` | `kernel` | `ramdisk`

`is-public`

Whether the image is public.

Type: Boolean

`kernel-id`

The kernel ID.

Type: String

`manifest-location`

The location of the image manifest.

Type: String

`name`

The name of the AMI (provided during image creation).

Type: String

`owner-alias`

Value from an Amazon-maintained list of snapshot owners. Not to be confused with the user-configured AWS account alias, which is set from the IAM console.

Type: String

Valid values: amazon | aws-marketplace | microsoft

`owner-id`  
The AWS account ID of the image owner.  
Type: String

`platform`  
The platform. To only list Windows-based AMIs, use `windows`.  
Type: String  
Valid value: windows

`product-code`  
The product code.  
Type: String

`product-code.type`  
The type of the product code.  
Type: String  
Valid values: devpay | marketplace

`ramdisk-id`  
The RAM disk ID.  
Type: String

`root-device-name`  
The name of the root device volume (for example, `/dev/sda1`).  
Type: String

`root-device-type`  
The type of the root device volume.  
Type: String  
Valid values: ebs | instance-store

`state`  
The state of the image.  
Type: String  
Valid values: available | pending | failed

`state-reason-code`  
The reason code for the state change.  
Type: String

`state-reason-message`  
The message for the state change.  
Type: String

`tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose is X, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

`tag-value`  
The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.  
Type: String

`tag:key=value`  
The key/value combination of a tag assigned to the resource.



Example: To list the resources with the tag Purpose=X, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag Purpose=X or the tag Purpose=Y, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

`virtualization-type`

The virtualization type.

Type: String

Valid values: `paravirtual` | `hvm`

`hypervisor`

The hypervisor type.

Type: String

Valid values: `ovm` | `xen`

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following rows of information for each image. Some fields may be empty.

1. The image information
  - The IMAGE identifier

- The ID of the image
  - The source of the image
  - The ID of the image owner
  - The date and time the image was created
  - The status of the image
  - The visibility of the image (`public` or `private`)
  - The product codes, if any, that are attached to the instance
  - The architecture of the image (`i386` or `x86_64`)
  - The image type (`machine`, `kernel`, or `ramdisk`)
  - The ID of the kernel associated with the image (machine images only)
  - The ID of the RAM disk associated with the image (machine images only)
  - The platform of the image
  - The type of root device (`ebs` or `instance-store`)
  - The root device name
  - The virtualization type (`paravirtual` or `hvm`)
  - The Hypervisor type (`xen` or `ovm`)
2. Any Amazon EBS volumes associated with the instance. There will be one of the following for each volume:
- The BLOCKDEVICE identifier
  - The device name
  - The ID of the snapshot
  - The volume size
  - Indicates whether the volume is deleted on instance termination (`true` or `false`)
  - The volume type
  - The IOPS provisioned for the volume (only valid for Provisioned IOPS SSD volumes)
  - The encryption status of the volume
3. Any tags associated with the instance. There will be one of the following for each tag:
- The TAG identifier
  - The resource type identifier
  - The ID of the resource
  - The tag key
  - The tag value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the specified AMI.

```
PROMPT> ec2-describe-images ami-1a2b3c4d  
  
IMAGE ami-1a2b3c4d amazon/getting-started-with-ebs-boot amazon available  
public i386 machine aki-AP13673c4 2015-10-01 367e6 ebs paravirtual xen  
BLOCKDEVICEMAPPING /dev/sda1 snap-936a2b3c4d 15 standard
```

## Example 2

This example filters the response to include only the public Windows images with an x86\_64 architecture.

```
PROMPT> ec2-describe-images --filter "is-public=true" --filter
"architecture=x86_64" --filter "platform=windows"

IMAGE ami-1a2b3c4d amazon/getting-started-with-ebs-boot amazon available
public x86_64 machine windows ebs hvm xen
IMAGE ami-2a2b3c4d amazon/SqlSvrStd2003r2-x86_64-Win-v1.07 amazon
available public x86_64 machine windows instance-store hvm xen
...
```

## Example 3

This example filters the results to display only images with an AWS Marketplace product code.

```
PROMPT> ec2-describe-images -F product-code.type=marketplace -o self

IMAGE ami-1a2b3c4d 111122223333/My MP Image 111122223333 available private
[marketplace: a1b2c3d4e5f6g7h8i9j10k11] i386 machine ebs paravirtual xen
BLOCKDEVICEMAPPING /dev/sda1 snap-2de0d457 15 standard
BLOCKDEVICEMAPPING /dev/sdb snap-27e0d45d 100 standard
...
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeImages](#)

### Related Commands

- [ec2-describe-image-attribute \(p. 325\)](#)
- [ec2-describe-instances \(p. 349\)](#)

# ec2-describe-instance-attribute

## Description

Describes the specified attribute of the specified instance. You can specify only one attribute at a time.

The short version of this command is **ec2dinatt**.

### Tip

If you are using the AWS CLI, see [describe-instance-attribute](#) instead.

## Syntax

```
ec2-describe-instance-attribute instance_id { --block-device-mapping | --ebs-optimized | --disable-api-termination | --group-id | --instance-initiated-shutdown-behavior | --instance-type | --kernel | --product-code | --ramdisk | --root-device-name | --source-dest-check | --sriov | --user-data }
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Type: String Required: Yes Example: i-43a4412a
-b, --block-device-mapping	The block device mapping for the instance. Type: String Required: No Example: -b
--disable-api-termination	Indicates whether the instance can be terminated using the Amazon EC2 console, CLI, and API. Type: Boolean Required: No Example: --disable-api-termination
--ebs-optimized <i>Boolean</i>	Indicates whether the instance is optimized for Amazon EBS I/O. Type: Boolean Required: No Example: --ebs-optimized
-g, --group-id	The security groups associated with the instance. Type: String Required: No Example: -g
--instance-initiated-shutdown-behavior	Indicates whether an instance stops or terminates when you initiate shutdown from the instance (using the operating system command for system shutdown). Type: String Required: No

Name	Description
	Example: <code>--instance-initiated-shutdown-behavior</code>
<code>-t, --instance-type</code>	The instance type of the instance. For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: String Required: No Example: <code>-t</code>
<code>-p, --product-code</code>	The product codes associated with an instance. Each product code includes a product code and type. Type: String Required: No Example: <code>-p</code>
<code>--kernel</code>	The ID of the kernel associated with the AMI. Type: String Required: No Example: <code>--kernel</code>
<code>--ramdisk</code>	The ID of the RAM disk associated with the AMI. Type: String Required: No Example: <code>--ramdisk</code>
<code>--root-device-name</code>	The name of the root device (for example, <code>/dev/sda1</code> ). Type: String Required: No Example: <code>--root-device-name</code>
<code>--source-dest-check</code>	Indicates whether source/destination checking is enabled. A value of <code>true</code> means checking is enabled, and <code>false</code> means checking is disabled. This value must be <code>false</code> for a NAT instance to perform NAT. For more information, see <a href="#">NAT Instances</a> in the <i>Amazon VPC User Guide</i> . Type: String Required: No Example: <code>--source-dest-check</code>
<code>--sriov</code>	Enhanced networking for the instance. A value of <code>simple</code> means that enhanced networking is enabled. Type: String Default: None Required: No Example: <code>--sriov</code>
<code>--user-data</code>	Any user data made available to the instance. Type: String Required: No Example: <code>--user-data</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- If the `--block-device-mapping` attribute is requested, one of the following for each Amazon EBS volume:
  - The `BLOCKDEVICE` identifier
  - The device name
  - The ID of the volume
  - The timestamp
  - The `DeleteOnTermination` attribute value
- For all other attributes:
  - The attribute type identifier
  - The ID of the instance
  - The attribute or attribute list item value

Amazon EC2 command line tools display errors on `stderr`.



## Examples

### Example 1

This example command describes the instance type of the specified instance.

```
PROMPT> ec2-describe-instance-attribute i-10a64379 --instance-type  
instanceType i-10a64379 t1.micro
```

### Example 2

This example command lists the current value of the `InstanceInitiatedShutdownBehavior` attribute for the specified instance.

```
PROMPT> ec2-describe-instance-attribute i-10a64379 --initiated-shutdown-  
behavior  
instanceInitiatedShutdownBehavior i-10a64379 stop
```

### Example 3

This example command lists the current value of the `DisableApiTermination` attribute for the specified instance.

```
PROMPT> ec2-describe-instance-attribute i-10a64379 --disable-api-termination  
disableApiTermination i-10a64379 false
```

### Example 4

This example command describes the devices in the block device mapping for the specified instance.

```
PROMPT> ec2-describe-instance-attribute i-10a64379 --block-device-mapping  
BLOCKDEVICE    /dev/sda1      vol-615a1339   2013-05-17T22:42:34.000Z  
true  
BLOCKDEVICE    /dev/sdf      vol-9f54b8dc   2013-09-10T23:07:00.000Z  
false
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeInstanceAttribute](#)

## Related Commands

- [ec2-describe-instances](#) (p. 349)
- [ec2-modify-instance-attribute](#) (p. 585)
- [ec2-reset-instance-attribute](#) (p. 674)

# ec2-describe-instance-status

## Description

Describes the status of one or more instances, including any scheduled events. By default, only running instances are described, unless specified otherwise.

Amazon EC2 performs automated checks on every running instance to identify hardware and software issues:

- System status checks: reports impaired functionality that stems from issues related to the systems that support an instance, such as hardware failures and network connectivity problems. The `DescribeInstanceStatus` response elements report such problems as impaired reachability.
- Instance status checks: reports impaired functionality that arises from problems internal to the instance. The `DescribeInstanceStatus` response elements report such problems as impaired reachability.

For more information about status checks, see [Status Checks for Your Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

Instance status provides information about four types of scheduled events for an instance that may require your attention:

- Scheduled Reboot: When Amazon EC2 determines that an instance must be rebooted, the instance status returns one of two event codes: `system-reboot` or `instance-reboot`. System reboot commonly occurs if certain maintenance or upgrade operations require a reboot of the underlying host that supports an instance. Instance reboot commonly occurs if the instance must be rebooted, rather than the underlying host. Rebooting events include a scheduled start and end time.
- System Maintenance: When Amazon EC2 determines that an instance requires maintenance that requires power or network impact, the instance's status will return an event code called `system-maintenance`. System maintenance is either power maintenance or network maintenance. For power maintenance, your instance will be unavailable for a brief period of time and then rebooted. For network maintenance, your instance will experience a brief loss of network connectivity. System maintenance events include a scheduled start and end time. You will also be notified by email if one of your instances is set for system maintenance. The email message indicates when your instance is scheduled for maintenance.
- Scheduled Retirement: When Amazon EC2 determines that an instance must be shut down, the instance's status returns an event code called `instance-retirement`. Retirement commonly occurs when the underlying host is degraded and must be replaced. Retirement events include a scheduled start and end time. You will also be notified by email if one of your instances is set to retiring. The email message indicates when your instance will be permanently retired.
- Scheduled Stop: When Amazon EC2 determines that an instance must be shut down, the instance status returns an event code called `instance-stop`. Stop events include a scheduled start and end time. You will also be notified by email if one of your instances is set to stop. The email message indicates when your instance will be stopped.

When your instance is retired, it will either be terminated (if its root device type is the instance-store) or stopped (if its root device type is an EBS volume). Instances stopped due to retirement will not be restarted, but you can do so manually. You can also avoid retirement of EBS-backed instances by manually restarting your instance when its event code is `instance-retirement`. This ensures that your instance is started on a different underlying host.

For more information about failed status checks, see [Troubleshooting Instances with Failed Status Checks](#) in the *Amazon EC2 User Guide for Linux Instances*. For more information about working with scheduled events, see [Working with an Instance That Has a Scheduled Event](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dins**.

**Tip**

If you are using the AWS CLI, see [describe-instance-status](#) instead.

## Syntax

```
ec2-describe-instance-status [instance_id ...] [-I, --hide-healthy ...] [-A,
--include-all-instances ...] [--filter "name=value" ...]
```

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: Describes all your instances. Constraints: Maximum 100 explicitly-specified instance IDs. Required: No Example: <code>i-15a4417c</code>
<code>-I, --hide-healthy</code>	Hide instances where all status checks pass. Required: No
<code>-A, --include-all-instances</code>	Describes all running and non-running instances. If this option is not specified, describes running instances only. Required: No
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ( <code>"name=value example"</code> ). On a Windows system, use quotation marks even without a space in the value string ( <code>"name=valueexample"</code> ). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ( <code>"`"name=valueexample`"</code> ). Type: String Default: Describes all your instances, or only those you specified. Required: No Example: <code>--filter "system-status.status=impaired"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain instances. For example, you can use a filter to specify that you're interested in instances in a specific Availability Zone. You can specify multiple values for a filter. The response includes information for an instance only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify instances that are in a specific Availability Zone and have a status of `retiring`. The response includes information for an instance only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availability-zone`

The Availability Zone of the instance.

Type: String

`event.code`

The code identifying the type of event.

Type: String

Valid values: `instance-reboot` | `system-reboot` | `system-maintenance` | `instance-retirement` | `instance-stop`

`event.description`

A description of the event.

Type: String

`event.not-after`

The latest end time for the scheduled event.

Type: DateTime

`event.not-before`

The earliest start time for the scheduled event.

Type: DateTime

`instance-state-name`

The state of the instance.

Type: String

Valid values: `pending` | `running` | `shutting-down` | `terminated` | `stopping` | `stopped`

`instance-state-code`

A code representing the state of the instance. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented

Type: Integer (16-bit unsigned integer)

Valid values: 0 (pending) | 16 (running) | 32 (shutting-down) | 48 (terminated) | 64 (stopping) | 80 (stopped)

`system-status.status`

The system status of the instance.

Type: String

Valid values: `ok` | `impaired` | `initializing` | `insufficient-data` | `not-applicable`

`system-status.reachability`

Filters on system status where the name is reachability.

Type: String

Valid values: `passed` | `failed` | `initializing` | `insufficient-data`

`instance-status.status`  
The status of the instance.  
Type: String  
Valid values: `ok` | `impaired` | `initializing` | `insufficient-data` | `not-applicable`

`instance-status.reachability`  
Filters on instance status where the name is `reachability`.  
Type: String  
Valid values: `passed` | `failed` | `initializing` | `insufficient-data`

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

The instance information

- The INSTANCE identifier
- The ID of the instance
- The availability zone of the instance
- The state name of the instance

- The state code of the instance
- The status of the instance
- The host system status
- The instance retirement status
- The instance retirement date

The host system status information

- The SYSTEMSTATUS identifier
- The host system status name
- The host system status
- The date and time that the host system became impaired, if applicable

The instance status information

- The INSTANCESTATUS identifier
- The instance status name
- The instance status
- The date and time that the instance became impaired, if applicable

Any events scheduled for the instance

- The EVENT identifier
- The event type
- The date and time of the opening of the event window
- The date and time of the closing of the event window
- The event description

No output is returned for instances that are not in the running state, unless the `-A` or `--include-all-instances` option is specified in the command.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the current state of the instances you own.

```
ec2-describe-instance-status
```

```
INSTANCE i-1a2b3c4d us-east-1d running 16 ok ok active  
SYSTEMSTATUS reachability passed  
INSTANCESTATUS reachability passed  
INSTANCE i-2a2b3c4d us-east-1d running 16 ok ok active  
SYSTEMSTATUS reachability passed  
INSTANCESTATUS reachability passed  
INSTANCE i-3a2b3c4d us-east-1d running 16 ok ok active  
SYSTEMSTATUS reachability passed  
INSTANCESTATUS reachability passed
```

```
INSTANCE i-4a2b3c4d us-east-1d running 16 ok ok retiring YYYY-MM-DDTHH:MM:SS
+0000
SYSTEMSTATUS reachability passed
INSTANCESTATUS reachability passed
EVENT instance-stop YYYY-MM-DDTHH:MM:SS+0000 The instance is running on
degraded hardware
INSTANCE i-5a2b3c4d us-east-1d running 16 ok ok retiring YYYY-MM-DDTHH:MM:SS
+0000
SYSTEMSTATUS reachability passed
INSTANCESTATUS reachability passed
EVENT instance-retiring YYYY-MM-DDTHH:MM:SS+0000 The instance is running on
degraded hardware
INSTANCE i-6a2b3c4d us-east-1d running 16 ok ok retiring YYYY-MM-DDTHH:MM:SS
+0000
SYSTEMSTATUS reachability passed
INSTANCESTATUS reachability passed
EVENT instance-stop YYYY-MM-DDTHH:MM:SS+0000 The instance is running on
degraded hardware
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeInstanceStatus](#)

### Related Commands

- [ec2-report-instance-status \(p. 655\)](#)

## ec2-describe-instances

### Description

Describes one or more of your instances.

If you specify one or more instance IDs, Amazon EC2 returns information for those instances. If you do not specify instance IDs, Amazon EC2 returns information for all relevant instances. If you specify an instance that you do not own, it's not included in the output.

Recently terminated instances might appear in the output. This interval is usually less than one hour.

The short version of this command is **ec2din**.



**Tip**

If you are using the AWS CLI, see [describe-instances](#) instead.

## Syntax

```
ec2-describe-instances [instance_id ...] [--filter "name=value" ...]
```

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: Describes all your instances. Required: No Example: i-15a4417c
<code>-F, --filter <i>name=value</i></code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>"name=valueexample"</i> "). Type: String Default: Describes all your instances, or only those you specified. Required: No Example: <code>--filter "tag-key=Production"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain instances. For example, you can use a filter to specify that you're interested in instances launched with a specific key pair. You can specify multiple values for a filter. The response includes information for an instance only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify instances that are launched with a specific key pair and use an Amazon EBS volume as the root device. The response includes information for an instance only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`architecture`

The instance architecture.

Type: String

- Valid values: i386 | x86\_64
- `availability-zone`  
The Availability Zone of the instance.  
Type: String
- `block-device-mapping.attach-time`  
The attach time for an Amazon EBS volume mapped to the instance (for example, 2010-09-15T17:15:20.000Z)  
Type: DateTime
- `block-device-mapping.delete-on-termination`  
Indicates whether the Amazon EBS volume is deleted on instance termination.  
Type: Boolean
- `block-device-mapping.device-name`  
The device name (for example, /dev/sdh) for the Amazon EBS volume.  
Type: String
- `block-device-mapping.status`  
The status for the Amazon EBS volume.  
Type: String  
Valid values: attaching | attached | detaching | detached
- `block-device-mapping.volume-id`  
The volume ID of the Amazon EBS volume.  
Type: String
- `client-token`  
The idempotency token you provided when you launched the instance.  
Type: String
- `dns-name`  
The public DNS name of the instance.  
Type: String
- `group-id`  
The ID of the security group for the instance. EC2-Classic only.  
Type: String
- `group-name`  
The name of the security group for the instance. EC2-Classic only.  
Type: String
- `iam-instance-profile.arn`  
The instance profile associated with the instance.  
Type: ARN
- `image-id`  
The ID of the image used to launch the instance.  
Type: String
- `instance-id`  
The ID of the instance.  
Type: String
- `instance-lifecycle`  
Indicates whether this is a Spot instance.  
Type: String  
Valid values: spot
- `instance-state-code`  
The state of the instance. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented.

Type: Integer (16-bit unsigned integer)

Valid values: 0 (pending) | 16 (running) | 32 (shutting-down) | 48 (terminated) | 64 (stopping) | 80 (stopped)

`instance-state-name`

The state of the instance.

Type: String

Valid values: `pending` | `running` | `shutting-down` | `terminated` | `stopping` | `stopped`

`instance-type`

The type of instance (for example, `m1.small`).

Type: String

`instance.group-id`

The ID of the security group for the instance.

Type: String

`instance.group-name`

The name of the security group for the instance.

Type: String

`ip-address`

The public IP address of the instance.

Type: String

`kernel-id`

The kernel ID.

Type: String

`key-name`

The name of the key pair used when the instance was launched.

Type: String

`launch-index`

When launching multiple instances, this is the index for the instance in the launch group (for example, 0, 1, 2, and so on).

Type: String

`launch-time`

The time when the instance was launched (for example, `2010-08-07T11:54:42.000Z`).

Type: DateTime

`monitoring-state`

Indicates whether monitoring is enabled for the instance.

Type: String

Valid values: `disabled` | `enabled`

`owner-id`

The AWS account ID of the instance owner.

Type: String

`placement-group-name`

The name of the placement group for the instance.

Type: String

`platform`

The platform. Use `windows` if you have Windows based instances; otherwise, leave blank.

Type: String

Valid value: `windows`

`private-dns-name`

The private DNS name of the instance.

<code>Type: String</code>	
<code>private-ip-address</code>	The private IP address of the instance.
<code>Type: String</code>	
<code>product-code</code>	The product code associated with the AMI used to launch the instance.
<code>Type: String</code>	
<code>product-code.type</code>	The type of product code.
<code>Type: String</code>	
	Valid values: <code>devpay</code>   <code>marketplace</code>
<code>ramdisk-id</code>	The RAM disk ID.
<code>Type: String</code>	
<code>reason</code>	The reason for the current state of the instance (for example, shows "User Initiated [date]" when you stop or terminate the instance). Similar to the state-reason-code filter.
<code>Type: String</code>	
<code>requester-id</code>	The ID of the entity that launched the instance on your behalf (for example, AWS Management Console, Auto Scaling, and so on)
<code>Type: String</code>	
<code>reservation-id</code>	The ID of the instance's reservation. A reservation ID is created any time you launch an instance. A reservation ID has a one-to-one relationship with an instance launch request, but can be associated with more than one instance if you launch multiple instances using the same launch request. For example, if you launch one instance, you'll get one reservation ID. If you launch ten instances using the same launch request, you'll also get one reservation ID.
<code>Type: String</code>	
<code>root-device-name</code>	The name of the root device for the instance (for example, <code>/dev/sda1</code> ).
<code>Type: String</code>	
<code>root-device-type</code>	The type of root device that the instance uses.
<code>Type: String</code>	
	Valid values: <code>ebs</code>   <code>instance-store</code>
<code>source-dest-check</code>	Indicates whether the instance performs source/destination checking. A value of <code>true</code> means that checking is enabled, and <code>false</code> means checking is disabled. The value must be <code>false</code> for the instance to perform network address translation (NAT) in your VPC.
<code>Type: Boolean</code>	
<code>spot-instance-request-id</code>	The ID of the Spot instance request.
<code>Type: String</code>	
<code>state-reason-code</code>	The reason code for the state change.
<code>Type: String</code>	
<code>state-reason-message</code>	A message that describes the state change.

Type: String

subnet-id

The ID of the subnet for the instance.

Type: String

tag-key

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:key=value

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

tenancy

The tenancy of an instance.

Type: String

Valid values: `dedicated` | `default` | `host`

virtualization-type

The virtualization type of the instance.

Type: String

Valid values: `paravirtual` | `hvm`

vpc-id

The ID of the VPC that the instance is running in.

Type: String

hypervisor

The hypervisor type of the instance.

Type: String

Valid values: `ovm` | `xen`

network-interface.description

The description of the network interface.

Type: String

network-interface.subnet-id

The ID of the subnet for the network interface.

Type: String

network-interface.vpc-id

The ID of the VPC for the network interface.

Type: String

network-interface.network-interface-id

The ID of the network interface.

Type: String

`network-interface.owner-id`  
The ID of the owner of the network interface.  
Type: String

`network-interface.availability-zone`  
The Availability Zone for the network interface.  
Type: String

`network-interface.requester-id`  
The requester ID for the network interface.  
Type: String

`network-interface.requester-managed`  
Indicates whether the network interface is being managed by AWS.  
Type: Boolean

`network-interface.status`  
The status of the network interface.  
Type: String  
Valid values: `available` | `in-use`

`network-interface.mac-address`  
The MAC address of the network interface.  
Type: String

`network-interface-private-dns-name`  
The private DNS name of the network interface.  
Type: String

`network-interface.source-dest-check`  
Whether the network interface performs source/destination checking. A value of `true` means checking is enabled, and `false` means checking is disabled. The value must be `false` for the network interface to perform network address translation (NAT) in your VPC.  
Type: Boolean

`network-interface.group-id`  
The ID of a security group associated with the network interface.  
Type: String

`network-interface.group-name`  
The name of a security group associated with the network interface.  
Type: String

`network-interface.attachment.attachment-id`  
The ID of the interface attachment.  
Type: String

`network-interface.attachment.instance-id`  
The ID of the instance to which the network interface is attached.  
Type: String

`network-interface.attachment.instance-owner-id`  
The owner ID of the instance to which the network interface is attached.  
Type: String

`network-interface.addresses.private-ip-address`  
The private IP address associated with the network interface.  
Type: String

`network-interface.attachment.device-index`  
The device index to which the network interface is attached.

Type: Integer

`network-interface.attachment.status`  
The status of the attachment.  
Type: String  
Valid values: `attaching` | `attached` | `detaching` | `detached`

`network-interface.attachment.attach-time`  
The time that the network interface was attached to an instance.  
Type: Date

`network-interface.attachment.delete-on-termination`  
Specifies whether the attachment is deleted when an instance is terminated.  
Type: Boolean

`network-interface.addresses.primary`  
Specifies whether the IP address of the network interface is the primary private IP address.  
Type: Boolean

`network-interface.addresses.association.public-ip`  
The ID of the association of an Elastic IP address with a network interface.  
Type: String

`network-interface.addresses.association.ip-owner-id`  
The owner ID of the private IP address associated with the network interface.  
Type: String

`association.public-ip`  
The address of the Elastic IP address bound to the network interface.  
Type: String

`association.ip-owner-id`  
The owner of the Elastic IP address associated with the network interface.  
Type: String

`association.allocation-id`  
The allocation ID returned when you allocated the Elastic IP address for your network interface.  
Type: String

`association.association-id`  
The association ID returned when the network interface was associated with an IP address.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).



Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following rows of information for each instance. Some fields may be empty.

1. The reservation information
  - The RESERVATION identifier
  - The ID of the reservation
  - The AWS account ID of the instance owner
  - [EC2-Classic only] The names of the security groups the instance is associated with
2. The instance information
  - The INSTANCE identifier
  - The ID of the instance
  - The AMI ID of the image on which the instance is based
  - The public DNS name associated with the instance. This is only present for instances in the running state.
  - The private DNS name associated with the instance. This is only present for instances in the running state.
  - The state of the instance
  - The key name. If a key was associated with the instance at launch, its name will appear.
  - The AMI launch index
  - The product codes associated with the instance
  - The instance type
  - The instance launch time
  - The Availability Zone
  - The ID of the kernel
  - The ID of the RAM disk
  - The platform (`windows` or `empty`)
  - The monitoring state
  - The public IP address
  - The private IP address
  - [EC2-VPC] The ID of the VPC
  - [EC2-VPC] The ID of the subnet
  - The type of root device (`ebs` or `instance-store`)
  - The instance lifecycle

- The Spot instance request ID
  - The instance license
  - The placement group the cluster instance is in
  - The virtualization type (`paravirtual` or `hvm`)
  - The hypervisor type (`xen` or `ovm`)
  - The client token
  - The ID of each security group the instance is associated with
  - The tenancy of the instance (`default`, `dedicated`, or `host`)
  - Whether or not the instance is EBS optimized (`true` or `false`)
  - The [Amazon Resource Name](#) (ARN) of the IAM role
3. Any Amazon EBS volumes associated with the instance. There will be one of the following for each volume:
- The BLOCKDEVICE identifier
  - The device name
  - The ID of the volume
  - The volume attach timestamp
  - Indicates whether the volume is deleted on instance termination (`true` or `false`)
  - The volume type
  - The I/O operations per second (IOPS)
4. [EC2-VPC] The network interface information. There will be a set of the following for each network interface:
- a. The network interface information
- The NIC identifier
  - The ID of the network interface
  - The ID of the subnet
  - The ID of the VPC
  - The owner ID
  - The network interface status
  - The private IP address of the network interface
  - The private DNS name
  - Whether or not source destination check is enabled (`true` or `false`)
- b. The network interface attachment information
- The NICATTACHMENT identifier
  - The attachment ID
  - The device index
  - The device status
  - The attachment timestamp
  - Whether or not the attachment is deleted on termination (`true` or `false`)
- c. The network interface association information
- The NICASSOCIATION identifier
  - The public IP address
  - The public IP address owner
  - The private IP address
- 
- d. The security group information
- The GROUP identifier
  - The security group identifier

- The security group name
- e. The private IP address information
- The PRIVATEIPADDRESS identifier
  - The private IP address
5. Any tags associated with the instance. There will be one of the following for each tag
- The TAG identifier
  - The resource type identifier
  - The ID of the resource
  - The tag key
  - The tag value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes all instances you own.

```
PROMPT> ec2-describe-instances

RESERVATION r-1a2b3c4d 111122223333 my-security-group
INSTANCE i-1a2b3c4d ami-1a2b3c4d ec2-203-0-113-25.compute-1.amazonaws.com
  ip-10-251-50-12.ec2.internal running my-key-pair 0 t1.micro YYYY-MM-
DDTHH:MM:SS+0000 us-west-2a aki-1a2b3c4d monitoring-disabled 184.73.10.99
  10.254.170.223 ebs paravirtual xen ABCDE1234567890123 sg-1a2b3c4d
  default false
BLOCKDEVICE /dev/sda1 vol-1a2b3c4d YYYY-MM-DDTHH:MM:SS.SSSZ
  true
RESERVATION r-2a2b3c4d 111122223333 another-security-group
INSTANCE i-2a2b3c4d ami-2a2b3c4d ec2-203-0-113-25.compute-1.amazonaws.com
  ip-10-251-50-12.ec2.internal running my-key-pair 0 t1.micro YYYY-MM-
DDTHH:MM:SS+0000 us-west-2c windows monitoring-disabled 50.112.203.9
  10.244.168.218 ebs hvm xen ABCDE1234567890123 sg-2a2b3c4d default
  false
BLOCKDEVICE /dev/sda1 vol-2a2b3c4d YYYY-MM-DDTHH:MM:SS.SSSZ
  true
```

### Example 2

This example describes only the instances that have the `m1.small` or `m1.large` instance type and an attached Amazon EBS volume that will be deleted on termination.

```
PROMPT> ec2-describe-instances --filter "instance-type=m1.small" --filter
"instance-type=m1.large" --filter "block-device-mapping.status=attached" --
filter "block-device-mapping.delete-on-termination=true"
RESERVATION r-1a2b3c4d 111122223333 my-security-group
INSTANCE i-1a2b3c4d ami-1a2b3c4d ec2-203-0-113-25.compute-1.amazonaws.com
  ip-10-251-50-12.ec2.internal running my-key-pair 0 t1.micro YYYY-MM-
DDTHH:MM:SS+0000 us-west-2a aki-1a2b3c4d monitoring-disabled 184.73.10.99
  10.254.170.223 ebs paravirtual xen ABCDE1234567890123 sg-1a2b3c4d
  default false
```

```
BLOCKDEVICE      /dev/sdb          vol-1a2b3c4d     YYYY-MM-DDTHH:MM:SS.SSSZ true
```

## Example 3

This example command describes all your instances that are running in a VPC.

```
PROMPT> ec2-describe-instances --filter "vpc-id=*"
RESERVATION r-1a2b3c4d 111122223333
INSTANCE i-1a2b3c4d ami-1a2b3c4d  running my-key-pair 0  m1.small YYYY-MM-
DDTHH:MM:SS+0000 us-west-2b  windows monitoring-disabled 50.112.172.209
  10.0.0.167 vpc-1a2b3c4d subnet-1a2b3c4d ebs          hvm xen ABCDE1234567890123
  sg-1a2b3c4d default false
BLOCKDEVICE      /dev/sdb          vol-1a2b3c4d     YYYY-MM-DDTHH:MM:SS.SSSZ
true
NIC eni-1a2b3c4d subnet-1a2b3c4d vpc-1a2b3c4d 111122223333 in-use 10.0.1.167
true
NICATTACHMENT eni-attach-1a2b3c4d 0 attached YYYY-MM-DDTHH:MM:SS+0000 true
GROUP sg-1a2b3c4d my-security-group
PRIVATEIPADDRESS 10.0.1.167
PRIVATEIPADDRESS 10.0.1.12
TAG instance i-1a2b3c4d Name Windows
RESERVATION r-2a2b3c4d 111122223333
INSTANCE i-2a2b3c4d ami-2a2b3c4d  running my-key-pair 0  c1.medium YYYY-MM-
DDTHH:MM:SS+0000 us-west-2b  aki-1a2b3c4d  monitoring-disabled 50.112.172.209
  10.0.0.233 vpc-1a2b3c4d subnet-1a2b3c4d ebs          hvm xen ABCDE1234567890123
  sg-1a2b3c4d default false
BLOCKDEVICE      /dev/sdal          vol-2a2b3c4d     YYYY-MM-DDTHH:MM:SS.SSSZ
true
NIC eni-2a2b3c4d subnet-1a2b3c4d vpc-1a2b3c4d 111122223333 in-use 10.0.1.233
true
NICATTACHMENT eni-attach-2a2b3c4d 0 attached YYYY-MM-DDTHH:MM:SS+0000 true
GROUP sg-1a2b3c4d my-security-group
PRIVATEIPADDRESS 10.0.1.233
PRIVATEIPADDRESS 10.0.1.20
TAG instance i-1a2b3c4d Name Linux
```

## Example 4

This example command describes any instances with a network interface that has a private IP address of 10.0.0.120.

```
PROMPT> ec2-describe-instances --filter "network-interface.addresses.private-
ip-address=10.0.0.120"
RESERVATION r-1a2b3c4d 111122223333
INSTANCE i-1a2b3c4d ami-1a2b3c4d  running my-key-pair 0  c1.medium YYYY-MM-
DDTHH:MM:SS+0000 us-west-2b  aki-1a2b3c4d  monitoring-disabled 50.112.172.209
  10.0.0.98 vpc-1a2b3c4d subnet-1a2b3c4d ebs          hvm xen ABCDE1234567890123
  sg-1a2b3c4d default false
BLOCKDEVICE      /dev/sdb          vol-1a2b3c4d     YYYY-MM-DDTHH:MM:SS.SSSZ
true
NIC eni-1a2b3c4d subnet-1a2b3c4d vpc-1a2b3c4d 111122223333 in-use 10.0.1.98
true
NICATTACHMENT eni-attach-1a2b3c4d 0 attached YYYY-MM-DDTHH:MM:SS+0000 true
GROUP sg-1a2b3c4d my-security-group
PRIVATEIPADDRESS 10.0.0.98
PRIVATEIPADDRESS 10.0.0.120
```

## Example 5

This example command describes any instances that have a tag with the key `Owner` and the value `DbAdmin`.

```
PROMPT> ec2-describe-instances --filter "tag:Owner=DbAdmin"
RESERVATION r-1a2b3c4d 111122223333
INSTANCE    i-1a2b3c4d ami-1a2b3c4d  running my-key-pair 0  c1.medium
            YYYY-MM-DDTHH:MM:SS+0000 us-west-2b aki-1a2b3c4d  monitoring-disabled
            50.112.172.209 10.0.0.98 vpc-1a2b3c4d subnet-1a2b3c4d ebs      hvm xen
            ABCDE1234567890123 sg-1a2b3c4d default false
BLOCKDEVICE /dev/sdb          vol-1a2b3c4d  YYYY-MM-DDTHH:MM:SS.SSSZ true
TAG          instance      i-1a2b3c4d  Owner      DbAdmin
```

To list all instances that have a tag with the key `Owner`, regardless of the value of the tag, use the following command.

```
PROMPT> ec2-describe-instances --filter "tag-key=Owner"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeInstances](#)

### Related Commands

- [ec2-run-instances \(p. 693\)](#)
- [ec2-start-instances \(p. 709\)](#)
- [ec2-stop-instances \(p. 713\)](#)
- [ec2-terminate-instances \(p. 716\)](#)

## ec2-describe-internet-gateways

### Description

Describes one or more of your Internet gateways.

The short version of this command is **ec2digw**.

#### Tip

If you are using the AWS CLI, see [describe-internet-gateways](#) instead.

## Syntax

```
ec2-describe-internet-gateways [internet_gateway_id ...] [--filter
"i-name=value"] ...]
```

## Options

Name	Description
<i>internet_gateway_id</i>	One or more Internet gateway IDs. Type: String Default: Describes all your Internet gateways. Required: No Example: igw-15a4417c
-F, --filter <i>name=value</i>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample"). Type: String Default: Describes all your Internet gateways, or only those you specified. Required: No Example: --filter "tag-key=Production"

## Supported Filters

You can specify filters so that the response includes information for only certain Internet gateways. For example, you can use a filter to specify that you're interested in the Internet gateways with particular tags. You can specify multiple values for a filter. The response includes information for an Internet gateway only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify Internet gateways that are attached to a specific VPC and have a specific tag. The response includes information for an Internet gateway only if it matches all the filters that you specified. If there's no match, no special message is returned, the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\.` searches for the literal string `*amazon?.`

The following are the available filters.

`attachment.state`

The current state of the attachment between the gateway and the VPC. Returned only if a VPC is attached.

Type: String

Valid value: available

`attachment.vpc-id`

The ID of an attached VPC.

Type: String

`internet-gateway-id`

The ID of the Internet gateway.

Type: String

`tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

`tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

`tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>



Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `INTERNETGATEWAY` identifier
- The ID of the Internet gateway
- The `ATTACHMENT` identifier
- The ID of the VPC (if the gateway is attached to a VPC)
- The state of the attachment (`attaching`, `attached`, `detaching`, `detached`)
- Any tags assigned to the Internet gateway

## Examples

### Example

This example command describes your Internet gateways.

```
PROMPT> ec2-describe-internet-gateways
INTERNETGATEWAY igw-dfa045b6
ATTACHMENT      vpc-d9a045b0    available
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeInternetGateways](#)

### Related Commands

- [ec2-attach-internet-gateway \(p. 60\)](#)

- [ec2-create-internet-gateway](#) (p. 133)
- [ec2-delete-internet-gateway](#) (p. 221)
- [ec2-detach-internet-gateway](#) (p. 515)

## ec2-describe-keypairs

### Description

Describes one or more of your key pairs.

The short version of this command is **ec2dkey**.

**Tip**

If you are using the AWS CLI, see [describe-key-pairs](#) instead.

### Syntax

```
ec2-describe-keypairs [keypair_name ...] [--filter "name=value"] ...]
```

### Options

Name	Description
<i>keypair_name</i>	One or more key pair names. Type: String Default: Describes all your key pairs. Required: No Example: my-key-pair
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your key pairs, or only those you specified. Required: No Example: --filter "tag-name=*Dave*"

### Supported Filters

You can specify filters so that the response includes information for only certain key pairs. For example, you can use a filter to specify that you're interested in key pairs whose names include the string `Dave`. You can specify multiple values for a filter. The response includes information for a key pair only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify key pairs whose names include the string `Dave` and whose fingerprint is a specific value. The response includes information for a key pair only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

- `fingerprint`  
The fingerprint of the key pair.  
Type: String
- `key-name`  
The name of the key pair.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>

Option	Description
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains one of the following for each key pair:

- The KEYPAIR identifier
- The key pair name
- The private key fingerprint

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the key pair named my-key-pair.

```
PROMPT> ec2-describe-keypairs my-key-pair
KEYPAIR my-key-pair
 1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:2d:7d:b8:ca:9f:f5:f1:6f
```

### Example Request

This example filters the response to include only key pairs whose names include the string Dave.

```
PROMPT> ec2-describe-keypairs --filter "key-name=*Dave*"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeKeyPairs](#)

### Related Commands

- [ec2-create-keypair \(p. 136\)](#)
- [ec2-delete-keypair \(p. 224\)](#)
- [ec2-import-keypair \(p. 567\)](#)

## ec2-describe-network-acls

### Description

Describes one or more of your network ACLs.

For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2dnac1**.

**Tip**

If you are using the AWS CLI, see [describe-network-acls](#) instead.

## Syntax

```
ec2-describe-network-acls [network_acl_id...] [--filter "name=value" ...]
```

## Options

Name	Description
<i>network_acl_id</i>	One or more network ACL IDs. Type: String Default: Describes all your network ACLs. Required: No Example: acl-7aa34613
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`"). Type: String Default: Describes all network ACLs in the VPC, or only those you specified. Required: No Example: --filter "tag-key=Production"

## Supported Filters

You can specify filters so that the response includes information for only certain ACLs. For example, you can use a filter to specify that you're interested in the ACLs associated with a particular subnet. You can specify multiple values for a filter. The response includes information for an ACL only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify ACLs that are associated with a specific subnet and have an egress entry that denies traffic to a specific port. The response includes information for an ACL only if it matches all the filters that you specified. If there's no match, no special message is returned, the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

```
association.association-id
    The ID of an association ID for the ACL.
```

Type: String

`association.network-acl-id`  
The ID of the network ACL involved in the association.  
Type: String

`association.subnet-id`  
The ID of the subnet involved in the association.  
Type: String

`default`  
Indicates whether the ACL is the default network ACL for the VPC.  
Type: Boolean

`entry.cidr`  
The CIDR range specified in the entry.  
Type: String

`entry.egress`  
Indicates whether the entry applies to egress traffic.  
Type: Boolean

`entry.icmp.code`  
The ICMP code specified in the entry, if any.  
Type: Integer

`entry.icmp.type`  
The ICMP type specified in the entry, if any.  
Type: Integer

`entry.port-range.from`  
The start of the port range specified in the entry.  
Type: Integer

`entry.port-range.to`  
The end of the port range specified in the entry.  
Type: Integer

`entry.protocol`  
The protocol specified in the entry.  
Type: String  
Valid values: `tcp` | `udp` | `icmp` or a protocol number

`entry.rule-action`  
Allows or denies the matching traffic.  
Type: String  
Valid values: `allow` | `deny`

`entry.rule-number`  
The number of an entry (in other words, rule) in the ACL's set of entries.  
Type: Integer

`network-acl-id`  
The ID of the network ACL.  
Type: String

`tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

`tag-value`  
The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.  
Type: String

`tag:key=value`  
The key/value combination of a tag assigned to the resource.  
Example: To list the resources with the tag Purpose=X, use:  
`--filter tag:Purpose=X`  
Example: To list resources with the tag Purpose=X or the tag Purpose=Y, use:  
`--filter tag:Purpose=X --filter tag:Purpose=Y`

`vpc-id`  
The ID of the VPC for the network ACL.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds.



Option	Description
	Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `NETWORKACL, ENTRY, ASSOCIATION` identifier

- The network ACL's ID, the ID of the VPC the ACL is in, and whether the ACL is the default ACL in the VPC
- The entries (in other words, rules) contained in the ACL
- Associations between the ACL and any subnets
- Any tags assigned to the ACL

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes all your network ACLs.

```
PROMPT> ec2-describe-network-acls
NETWORKACL    acl-5566953c    vpc-5266953b    default
ENTRY    egress    100    allow    0.0.0.0/0    all
ENTRY    egress    32767    deny    0.0.0.0/0    all
ENTRY    ingress    100    allow    0.0.0.0/0    all
ENTRY    ingress    32767    deny    0.0.0.0/0    all
NETWORKACL    acl-5d659634    vpc-5266953b
ENTRY    egress    110    allow    0.0.0.0/0    6    49152    65535
ENTRY    egress    32767    deny    0.0.0.0/0    all
ENTRY    ingress    110    allow    0.0.0.0/0    6    80    80
ENTRY    ingress    120    allow    0.0.0.0/0    6    443    443
ENTRY    ingress    32767    deny    0.0.0.0/0    all
ASSOCIATION    aclassoc-5c659635    subnet-ff669596
ASSOCIATION    aclassoc-c26596ab    subnet-f0669599
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeNetworkAcls](#)

### Related Commands

- [ec2-create-network-acl \(p. 140\)](#)
- [ec2-delete-network-acl \(p. 227\)](#)
- [ec2-replace-network-acl-association \(p. 640\)](#)
- [ec2-create-network-acl-entry \(p. 143\)](#)

- [ec2-delete-network-acl-entry](#) (p. 230)
- [ec2-replace-network-acl-entry](#) (p. 643)

## ec2-describe-network-interface-attribute

### Description

Describes a network interface attribute. You can specify only one attribute at a time.

The short version of this command is **ec2dnicatt**.

#### Tip

If you are using the AWS CLI, see [describe-network-interface-attribute](#) instead.

### Syntax

```
ec2-describe-network-interface-attribute interface_id --description description --source-dest-check --group-set --attachment
```

### Options

Name	Description
<i>interface_id</i>	The ID of the network interface. Type: String Default: None Required: Yes Example: eni-bc7299d4
<i>-d</i> , <i>--description description</i>	Describes the network interface. Type: String Required: Yes
<i>--source-dest-check</i>	Indicates whether source/destination checking is enabled. Type: String Required: Yes
<i>--group-set</i>	The security groups associated with the network interface. Type: String Required: Yes
<i>-a</i> , <i>--attachment</i>	The attachment (if any) of the network interface. Type: String Required: Yes

### Common Options

Option	Description
<i>--region region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.

Option	Description
	Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>

Option	Description
-?, --help, -h	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns the specified network interface attribute.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example Request

This example command describes the specified network interface.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da -d
NETWORKINTERFACE      eni-b35da6da      description
DESCRIPTION          My ENI
```

This example command enables source/destination checking on traffic across the specified network interface.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da --source-dest-  
check
NETWORKINTERFACE      eni-b35da6da      sourceDestCheck
SOURCEDESTCHECK      true
```

This example command describes the security groups for the specified network interface.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da --group-set
```

NETWORKINTERFACE		eni-b35da6da	group
GROUP	sg-8ealbce2	default	

## Related Topics

### Download

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeNetworkInterfaceAttribute](#)

### Related Commands

- [ec2-create-network-interface](#) (p. 147)
- [ec2-delete-network-interface](#) (p. 234)
- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-attach-network-interface](#) (p. 63)
- [ec2-detach-network-interface](#) (p. 518)
- [ec2-modify-network-interface-attribute](#) (p. 591)
- [ec2-reset-network-interface-attribute](#) (p. 677)

# ec2-describe-network-interfaces

## Description

Describes one or more of your network interfaces.

The short version of this command is **ec2dnic**.

### Tip

If you are using the AWS CLI, see [describe-network-interfaces](#) instead.

## Syntax

```
ec2-describe-network-interfaces [interface_id ...] [--filter  
"name=value"] ...]
```

## Options

Name	Description
<i>interface_id</i>	One or more network interface IDs.

Name	Description
	Type: String Default: Describes all your network interfaces. Required: No Example: eni-bc7299d4
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your network interfaces, or only those you specified. Required: No Example: -F "description=My ENI"

## Supported Filters

You can specify filters so that the response includes information for only certain network interfaces. For example, you can use a filter to specify that you're interested in network interfaces launched in a specific Availability Zone. You can specify multiple values for a filter. The response includes information for a network interface only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify network interfaces in a specific Availability Zone, and that have a specific owner ID. The response includes information for a network interface only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`addresses.private-ip-address`

The private IP addresses associated with the network interface.

Type: String

`addresses.primary`

Whether the private IP address is the primary IP address associated with the network interface.

Type: Boolean

`addresses.association.public-ip`

The association ID returned when the network interface was associated with the Elastic IP address.

Type: String

`addresses.association.owner-id`

The owner ID of the addresses associated with the network interface.

Type: String

`association.association-id`  
The association ID returned when the network interface was associated with an IP address.  
Type: String

`association.allocation-id`  
The allocation ID returned when you allocated the Elastic IP address for your network interface.  
Type: String

`association.ip-owner-id`  
The owner of the Elastic IP address associated with the network interface.  
Type: String

`association.public-ip`  
The address of the Elastic IP address bound to the network interface.  
Type: String

`association.public-dns-name`  
The public DNS name for the network interface.  
Type: String

`attachment.attachment-id`  
The ID of the interface attachment.  
Type: String

`attachment.instance-id`  
The ID of the instance to which the network interface is attached.  
Type: String

`attachment.instance-owner-id`  
The owner ID of the instance to which the network interface is attached.  
Type: String

`attachment.device-index`  
The device index to which the network interface is attached.  
Type: Integer

`attachment.status`  
The status of the attachment.  
Type: String  
Valid values: `attaching` | `attached` | `detaching` | `detached`

`attachment.attach.time`  
The time that the network interface was attached to an instance.  
Type: DateTime

`attachment.delete-on-termination`  
Indicates whether the attachment is deleted when an instance is terminated.  
Type: Boolean

`availability-zone`  
The Availability Zone of the network interface.  
Type: String

`description`  
The description of the network interface.  
Type: String

`group-id`  
The ID of a security group associated with the network interface.  
Type: String



- `group-name`  
The name of a security group associated with the network interface.  
Type: String
- `mac-address`  
The MAC address of the network interface.  
Type: String
- `network-interface-id`  
The ID of the network interface.  
Type: String
- `owner-id`  
The AWS account ID of the network interface owner.  
Type: String
- `private-ip-address`  
The private IP address or addresses of the network interface.  
Type: String
- `private-dns-name`  
The private DNS name of the network interface.  
Type: String
- `requester-id`  
The ID of the entity that launched the instance on your behalf (for example, AWS Management Console, Auto Scaling, and so on).  
Type: String
- `requester-managed`  
Indicates whether the network interface is being managed by an AWS service (for example, AWS Management Console, Auto Scaling, and so on).  
Type: Boolean
- `source-dest-check`  
Indicates whether the network interface performs source/destination checking. A value of `true` means checking is enabled, and `false` means checking is disabled. The value must be `false` for the network interface to perform Network Address Translation (NAT) in your VPC.  
Type: Boolean
- `status`  
The status of the network interface. If the network interface is not attached to an instance, the status shows `available`; if a network interface is attached to an instance the status shows `in-use`.  
Type: String  
Valid values: `available` | `in-use`
- `subnet-id`  
The ID of the subnet for the network interface.  
Type: String
- `tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:*key=value*

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag Purpose=X, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag Purpose=X or the tag Purpose=Y, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

vpc-id

The ID of the VPC for the network interface.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information for each network interface.

- The `NETWORKINTERFACE` identifier
- The ID of the network interface

- The ID of the subnet
- The ID of the VPC
- The Availability Zone
- A description
- The ID of the account that created the network interface
- The ID of the entity that launched the instance on your behalf
- Indicates whether the network interface is being managed by AWS
- The status (*available*, *attaching*, *in-use*, *detaching*)
- The MAC address
- The private IP address
- The private DNS name
- Indicates whether traffic to or from the instance is validated
- The GROUP identifier
- The ID of the security group
- The name of the security group
- The ATTACHMENT identifier
- The ID of the instance
- The ID of the attachment
- The ASSOCIATION identifier
- The Elastic IP address
- The ID of the owner of the Elastic IP address
- The ID of the account that created the network association
- The ID of the association
- The private IP address
- The PRIVATEIPADDRESS identifier
- The private IP address

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example Request

This example lists all your network interfaces.

```
PROMPT> ec2-describe-network-interfaces
NETWORKINTERFACE      eni-5e318a37          subnet-c53c87ac vpc-cc3c87a5
ap-southeast-1b 053230519467          false in-use 02:81:60:c7:15:3d
  10.0.0.79            true
GROUP      sg-084b5664      quick-start-4
ATTACHMENT i-5a0f6b0e      eni-attach-59bf7430  attached      true
PRIVATEIPADDRESS  10.0.0.79        ip-10.0.0.79.ec2.internal
PRIVATEIPADDRESS  10.0.0.183       ip-10.0.0.183.ec2.internal
PRIVATEIPADDRESS  10.0.0.184       ip-10.0.0.184.ec2.internal
NETWORKINTERFACE  eni-236dd74a     My ENI subnet-c88a35a1 vpc-f28a359b
ap-southeast-1a 053230519467          false available
  02:78:d7:32:3f:ba   10.0.0.117      true
```

```

GROUP      sg-854954e9      LinuxGroup
PRIVATEIPADDRESS  10.0.0.117      ip-10.0.0.117.ec2.internal
NETWORKINTERFACE  eni-69ce7500    Primary network interface
  subnet-cd8a35a4 vpc-f28a359b
ap-southeast-1b 053230519467      false   in-use   02:78:d7:18:ad:f0
  10.0.1.152      true
GROUP      sg-dc4c51b0      quick-start-2
ATTACHMENT  i-e0841fb4      eni-attach-696ba300  attached      true
ASSOCIATION 203-0-113-25    053230519467      eipassoc-0fbb766a
  10.0.1.152    ec2-203-0-113-25.compute-1.amazonaws.com
PRIVATEIPADDRESS  10.0.1.152      ip-10-0-1-152.ec2.internal
PRIVATEIPADDRESS  10.0.1.12       ip-10-0-1-12.ec2.internal
  
```

This example filters for a network interface with the private IP address of 10.0.0.26.

```

PROMPT> ec2-describe-network-interfaces --filter "addresses.private-ip-
address=10.0.0.26"
NETWORKINTERFACE  eni-4cba0725      subnet-73ba071a vpc-6bba0702

ap-southeast-1b 013274050172      false   available
  02:75:3f:8e:3a:d3  10.0.0.26      true
GROUP      sg-8fb3a1e3      default
ASSOCIATION 203.0.113.12      013274050172      eipassoc-f008b799
  10.0.0.26
PRIVATEIPADDRESS  10.0.0.26      ip-10.0.0.26.ec2.internal
  
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeNetworkInterfaces](#)

### Related Commands

- [ec2-create-network-interface \(p. 147\)](#)
- [ec2-delete-network-interface \(p. 234\)](#)
- [ec2-describe-network-interface-attribute \(p. 376\)](#)
- [ec2-attach-network-interface \(p. 63\)](#)
- [ec2-detach-network-interface \(p. 518\)](#)
- [ec2-modify-network-interface-attribute \(p. 591\)](#)
- [ec2-reset-network-interface-attribute \(p. 677\)](#)

# ec2-describe-placement-groups

## Description

Describes one or more of your placement groups. For more information about placement groups and cluster instances, see [Cluster Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dpgrp**.

### Tip

If you are using the AWS CLI, see [describe-placement-groups](#) instead.

```
ec2-describe-placement-groups [group_name ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>group_name</i>	One or more placement group names. Type: String Default: Describes all placement groups you own. Required: No Example: XYZ-cluster
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your placement groups, or only those you specified. Required: No Example: --filter "group-name=*Project"

## Supported Filters

You can specify a filter so that the response includes information for only certain placement groups. For example, you can use a filter to specify that you're interested in groups in the `deleted` state. You can specify multiple values for a filter. The response includes information for a placement group only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify group's that are in the `deleted` state and have a name that includes the string `Project`. The response includes information for a group only if it matches all your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

- group-name  
The name of the placement group.  
Type: String
- state  
The state of the placement group.  
Type: String  
Valid values: pending | available | deleting | deleted
- strategy  
The strategy of the placement group.  
Type: String  
Valid value: cluster

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the following information:

- The `PLACEMENTGROUP` identifier
- The placement group name



- The placement strategy
- The state of the placement group

## Examples

### Example 1

This example command describes all your placement groups.

```
PROMPT> ec2-describe-placement-groups  
PLACEMENTGROUP XYZ-cluster cluster available  
PLACEMENTGROUP ABC-cluster cluster available
```

### Example 2

This example filters the response to include only placement groups that include the string `Project` in the name.

```
PROMPT> ec2-describe-placement-groups --filter "group-name=*Project*"  
PLACEMENTGROUP Project-cluster cluster available
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribePlacementGroups](#)

### Related Commands

- [ec2-create-placement-group \(p. 152\)](#)
- [ec2-delete-placement-group \(p. 237\)](#)

## ec2-describe-prefix-lists

### Description

Describes available AWS services in a prefix list format, which includes the name and ID of the service and the IP address range for the service. A prefix list ID is required for creating an outbound security group rule that allows traffic from a VPC to access an AWS service through a VPC endpoint.

The short version of this command is **ec2dpl**.

**Tip**

If you are using the AWS CLI, see [describe-prefix-lists](#) instead.

## Syntax

```
ec2-describe-prefix-lists [prefix_list ... ] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>prefix_list</i>	One or more prefix list IDs. Type: String Default: Describes all prefix lists. Required: No Example: pl-12345678
<i>-F, --filter name=value</i>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`"). Type: String Required: No Example: --filter prefix-list-id=pl-12345678

## Supported Filters

You can specify filters so that the response includes information for only certain prefix lists. For example, you can use a filter to specify that you're interested in a prefix list with a unique ID. The response includes information for the prefix list only if it matches at least one of the filter values that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`prefix-list-id`

The ID of a prefix list.

Type: String

`prefix-list-name`

The name of a prefix list.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each request:

- Information about the prefix list:
  - The PREFIXLIST identifier
  - The prefix list ID
  - The prefix list name
- Information about the CIDR:
  - The CIDR identifier
  - The IP address range

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example lists all available prefix lists.

```
PROMPT> ec2-describe-prefix-lists  
PREFIXLIST pl-12345678 com.amazonaws.us-east-1.s3  
CIDR 54.123.456.7/19
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribePrefixLists](#)

### Related Commands

- [ec2-create-vpc-endpoint \(p. 190\)](#)
- [ec2-delete-vpc-endpoints \(p. 264\)](#)
- [ec2-describe-vpc-endpoints \(p. 484\)](#)
- [ec2-describe-vpc-endpoint-services \(p. 488\)](#)
- [ec2-modify-vpc-endpoint \(p. 613\)](#)

## ec2-describe-regions

### Description

Describes one or more of the regions that are available to you.

For a list of the regions supported by Amazon EC2, see [Regions and Availability Zones](#).

The short version of this command is **ec2dre**.

#### Tip

If you are using the AWS CLI, see [describe-regions](#) instead.

### Syntax

```
ec2-describe-regions [region...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>region</i>	One or more region names. Type: String Default: Describes all your regions. Required: No Example: eu-west-1
<i>-F, --filter name=value</i>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`"). Type: String Default: Describes all your regions, or only those you specified. Required: No Example: --filter "endpoint=*ap"

## Supported Filters

You can specify filters so that the response includes information for only certain regions.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\.` searches for the literal string `*amazon?.`

The following are the available filters.

`endpoint`

The endpoint of the region (for example, `ec2.us-east-1.amazonaws.com`).

Type: String

`region-name`

The name of the region.

Type: String

## Common Options

Option	Description
<i>--region region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The REGION identifier
- The name of the region
- The service endpoint for the region

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes all the regions that are available to you.

```
PROMPT> ec2-describe-regions
REGION us-east-1 ec2.us-east-1.amazonaws.com
REGION ap-northeast-1 ec2.ap-northeast-1.amazonaws.com
REGION ap-southeast-1 ec2.ap-southeast-1.amazonaws.com
..
```

### Example 2

This example displays information about all regions that have the string `ap` in the endpoint.

```
PROMPT> ec2-describe-regions --filter "endpoint=*ap*"
REGION ap-southeast-1 ec2.us-east-1.amazonaws.com
```



## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeRegions](#)

### Related Commands

- [ec2-describe-availability-zones](#) (p. 291)
- [ec2-run-instances](#) (p. 693)

## ec2-describe-reserved-instances

### Description

Describes the Reserved instances that you purchased.

For more information, see [Reserved Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dri**.

#### Tip

If you are using the AWS CLI, see [describe-reserved-instances](#) instead.

### Syntax

```
ec2-describe-reserved-instances [reservation_id ...] [--filter  
"name=value"] ...]
```

### Options

Name	Description
<code>reservation_id</code>	The IDs of the Reserved instances. Type: String Default: Describes all your Reserved instances. Required: No Example: 4b2293b4-5813-4cc8-9ce3-1957fexample
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values

Name	Description
	<p>are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`").</p> <p>Type: String</p> <p>Default: Describes all your Reserved instances, or only those you specified.</p> <p>Required: No</p> <p>Example: --filter "tag-key=Production"</p>

## Supported Filters

You can specify a filter so that the response includes information for only certain Reserved instances. For example, you can use a filter to specify that you're interested in Reserved instances in a specific Availability Zone. You can specify multiple values for a filter. The response includes information for a Reserved instance only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify Reserved instances that are in a specific Availability Zone and have a specific tag. The response includes information for a Reserved instance only if it matches all of the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availability-zone`

The Availability Zone where the Reserved instance can be used.

Type: String

`duration`

The duration of the Reserved instance (one year or three years), in seconds.

Type: Long

Valid values: 31536000 | 94608000

`end`

The time when the Reserved instance expires.

Type: DateTime

`fixed-price`

The purchase price of the Reserved instance (for example, 9800.0).

Type: Double

`instance-type`

The instance type that is covered by the reservation.

Type: String

`product-description`

The Reserved instance product platform description. Instances that include (Amazon VPC) in the product platform description will only be displayed to EC2-Classical account holders and are for use with Amazon VPC.

Type: String

Valid values: Linux/UNIX | Linux/UNIX (Amazon VPC) | SUSE Linux | SUSE Linux (Amazon VPC) | Red Hat Enterprise Linux | Red Hat Enterprise Linux (Amazon VPC) | Windows | Windows (Amazon VPC) | Windows with SQL Server Standard | Windows with SQL Server Standard (Amazon VPC) | Windows with SQL Server Web | Windows with SQL Server Web (Amazon VPC) | Windows with SQL Server Enterprise | Windows with SQL Server Enterprise (Amazon VPC)

reserved-instances-id

The ID of the Reserved instance.

Type: String

start

The time at which the Reserved instance purchase request was placed (for example, 2010-08-07T11:54:42.000Z).

Type: DateTime

state

The state of the Reserved instance.

Type: String

Valid values: pending-payment | active | payment-failed | retired

tag-key

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:*key=value*

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

usage-price

The usage price of the Reserved instance, per hour (for example, 0.84).

Type: Double

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The RESERVEDINSTANCES identifier.
- The ID of the Reserved instance.
- The Availability Zone in which the Reserved instance can be used.
- The instance type.
- The Reserved instance product platform description.
- The duration of the Reserved instance.
- The upfront fee (fixed price) you pay for the Reserved instance.
- The fee (usage price) you pay per hour for using your Reserved instance.
- The number of Reserved instances purchased.
- The start date of the Reserved instance term.
- The time when the Reserved instance expires.
- The state of the Reserved instance purchase (*payment-pending*, *active*, *payment-failed*).
- The currency of the Reserved instance purchased. It's specified using the ISO 4217 standard (for example, *USD*, *JPY*).
- The tenancy of the instances covered by the reservation. A Reserved instance with a tenancy of *dedicated* is applied to instances that run in a VPC on single-tenant hardware (i.e, *Dedicated instances*).
- The instance offering type

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the Reserved instances that you own.

```
PROMPT> ec2-describe-reserved-instances  
RESERVEDINSTANCES 1ba8e2e3-2538-4a35-b749-1f444example us-east-1a m1.small  
Linux/UNIX 3y 350.0 0.03 1 2009-03-13T16:01:39+0000 payment-pending USD  
default Light Utilization  
RESERVEDINSTANCES af9f760e-c1c1-449b-8128-1342dexample us-east-1d m1.xlarge  
Linux/UNIX 1y 1820.0 0.24 1 2009-03-13T16:01:39+0000 active USD default  
Medium Utilization
```

### Example 2

This example filters the response to include only one-year, `m1.small` Linux/UNIX Reserved instances. If you want Linux/UNIX Reserved instances specifically for use with a VPC, set the product description to `Linux/UNIX (Amazon VPC)`.

```
PROMPT> ec2-describe-reserved-instances --filter "duration=31536000" --filter  
"instance-type=m1.small" --filter "product-description=Linux/UNIX"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeReservedInstances](#)

### Related Commands

- [ec2-describe-reserved-instances-offerings \(p. 413\)](#)
- [ec2-purchase-reserved-instances-offering \(p. 619\)](#)
- [ec2-describe-reserved-instances-modifications \(p. 408\)](#)
- [ec2-modify-reserved-instances \(p. 596\)](#)

# ec2-describe-reserved-instances-listings

## Description

Describes your account's Reserved Instance listings in the Reserved Instance Marketplace. This call returns information about your listings, such as the identifiers of the Reserved Instances that are associated with the Reserved Instances listings.

The Reserved Instance Marketplace matches sellers who want to resell Reserved Instance capacity that they no longer need with buyers who want to purchase additional capacity. Reserved Instances bought and sold through the Reserved Instance Marketplace work like any other Reserved Instances.

As a seller, you choose to list some or all of your Reserved Instances, and you specify the upfront price you want to receive for them. Your Reserved Instances are then listed in the Reserved Instance Marketplace and are available for purchase.

As a buyer, you specify the configuration of the Reserved Instance you want to purchase, and the Marketplace will match what you're searching for with what's available. The Marketplace will first sell the lowest priced Reserved Instances to you, and continue to sell the available Reserved Instance listings to you until your demand is met. You will be charged based on the total upfront price of all the Reserved Instances that you purchase.

For more information, see [Reserved Instance Marketplace](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dril**.

### Tip

If you are using the AWS CLI, see [describe-reserved-instances-listings](#) instead.

## Syntax

```
ec2-describe-reserved-instances-listings listing [--filter  
"name=value"] ...]
```

## Options

Name	Description
<i>listing</i>	The ID of the Reserved Instance listing. Type: String Default: None Required: No
<code>-F, --filter FILTER name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your Reserved Instances listings, or only those you specified. Required: No

Name	Description
	Example: <code>--filter "status=pending"</code>

## Supported Filters

Our policy is to provide filters for all `ec2-describe` calls so that you can limit the response to your specified criteria. Therefore, you can use filters to limit the response when describing Reserved instances listings, even though you can use other options instead.

For example, you can use a filter or an option to get the listing of Reserved instances that are in an active state. You can also specify multiple options or filters (for example, to limit the response to the Reserved instances listings that are in the closed state with a specific status message). The response includes information for a listing only if it matches all options or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

<code>status</code>	Status of the Reserved instance listing. Valid values: <code>pending</code>   <code>active</code>   <code>cancelled</code>   <code>closed</code> Type: String
<code>status-message</code>	Reason for the status. Type: String
<code>reserved-instances-listing-id</code>	The ID of the Reserved instance listing. Type: String
<code>reserved-instances-id</code>	The ID of the Reserved instances. Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .



Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:

The listing information

- The LISTING identifier
- Reserved instance listing ID
- Reserved instance ID
- The create date
- The update date
- Status
- Status message

One or more rows that contain instance count information

- The INSTANCE-COUNT identifier
- The instance count state
- The instance count

One or more rows that contain price schedule information

- The PRICE-SCHEDULE identifier
- The term
- The price
- Whether or not the schedule is active

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes a Reserved Instance listing that you own.

```
PROMPT> ec2-describe-reserved-instances-listings 095c0e18-  
c9e6-4692-97e5-653e0example
```

Amazon EC2 returns output similar to the following:

```
PROMPT> ec2-describe-reserved-instances-listings 095c0e18-  
c9e6-4692-97e5-653e0example  
Type ReservedInstancesListingId ReservedInstancesId CreateDate UpdateDate  
Status StatusMessage  
LISTING 095c0e18-c9e6-4692-97e5-653e0example b847fa93-c736-4eae-bca1-  
e3147example Tue Aug 28 18:21:07 PDT 2012 Tue Aug 28 18:21:07 PDT 2012 active  
active  
INSTANCE-COUNT available 1  
INSTANCE-COUNT sold 0  
INSTANCE-COUNT cancelled 0  
INSTANCE-COUNT pending 0  
PRICE-SCHEDULE 5 $1.2 false  
PRICE-SCHEDULE 4 $1.2 true  
PRICE-SCHEDULE 3 $1.2 false  
PRICE-SCHEDULE 2 $1.2 false  
PRICE-SCHEDULE 1 $1.2 true
```

## Related Operations

- [ec2-create-reserved-instances-listing](#) (p. 155)
- [ec2-cancel-reserved-instances-listing](#) (p. 94)
- [ec2-describe-reserved-instances](#) (p. 398)

# ec2-describe-reserved-instances-modifications

## Description

Describes the modifications made to your Reserved Instances. If no parameter is specified, information about all your Reserved Instances modification requests is returned. If a modification ID is specified, only information about the specific modification is returned.

For more information, see [Modifying Reserved Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2drim**.

### Tip

If you are using the AWS CLI, see [describe-reserved-instances-modifications](#) instead.

## Syntax

```
ec2-describe-reserved-instances-modifications [modification-id [modification-  
id [...]]] [--filter "name=value"] ...]
```

## Options

Name	Description
<code>modification-id</code>	The IDs of the modification requests for which you want information. Type: String Default: Describes all your modification requests. Required: No Example: rimod-594f08ad-d0a4-41bc-a2c0-3d8e7example
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`"). Type: String Default: Describes all your Reserved Instance modification requests, or only those you specified. Required: No Example: --filter "tag-key=Production"

## Supported Filters

Our policy is to provide filters for all `ec2-describe` calls so that you can limit the response to your specified criteria. Therefore, you can use filters to limit the response when describing Reserved instances modifications, even though you can also use other options instead.

For example, you can use a filter or an option to get the listing of Reserved instances that are in an active state. You can also specify multiple options or filters (for example, to limit the response to the Reserved instances listings that are in the closed state with a specific status message). The response includes information for a listing only if it matches all options or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`client-token`  
The idempotency token for the modification request.  
Type: String

`create-date`  
Time when the modification request was created.  
Type: DateTime

`effective-date`  
Time when the modification becomes effective.  
Type: DateTime

`modification-result.reserved-instances-id`  
ID for the Reserved instances created as part of the modification request. This ID is only available when the status of the modification is fulfilled.  
Type: String

`modification-result.target-configuration.availability-zone`  
The Availability Zone for the new Reserved instances.  
Type: String

`modification-result.target-configuration.instance-count`  
The number of new Reserved instances.  
Type: Integer

`modification-result.target-configuration.instance-type`  
Instance type that is covered by the new Reserved instances.  
Type: String

`modification-result.target-configuration.platform`  
The network platform of the new Reserved instances.  
Type: String  
Valid values: EC2-Classic, EC2-VPC

`reserved-instances-id`  
The ID of the Reserved instances modified.  
Type: String

`reserved-instances-modification-id`  
ID of the modification request.  
Type: String

`status`  
The status of the modification request.  
Type: String  
Valid values: processing | fulfilled | failed

`status-message`  
The reason for the status.  
Type: String

`update-date`  
Time when the modification request was last updated.  
Type: DateTime

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

The modification request information:

- The Reserved Instances modification request ID
- The ID of the Reserved Instances submitted for modification
- The client token
- The create date
- The update date
- The effective date
- The status of the Reserved Instance modification request (processing, fulfilled, or failed)
- A status message

The modified Reserved Instances information:

- The Availability Zone for the new Reserved Instances.
- The network platform in which the new Reserved Instances will be launched. Either EC2-Classic or EC2-VPC.
- The instance type of the new Reserved Instances.
- The number of Reserved Instances created as a result of the modification.
- The ID of the Reserved Instances created as a result of the modification. Only available if the modification request was successful, and its status is `fulfilled`.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command describes all the Reserved Instances modification requests that have been submitted for your account.

```
PROMPT> ec2-describe-reserved-instances-modifications --headers
```

```
Type ReservedInstancesModificationId ClientToken CreateDate UpdateDate  
EffectiveDate Status StatusMessage  
RESERVEDINSTANCESMODIFICATION rimod-1a4087c4-4f31-49ff-b364-7b035example  
d3d95824-afe3-47b6-82d4-cf25fexample 2013-08-30T21:34:30+0000  
2013-08-30T21:52:34+0000 2013-08-30T21:00:00+0000 fulfilled  
Type ReservedInstancesId  
RESERVEDINSTANCES d16f7a91-e134-45ff-869c-23179example  
Type AvailabilityZone InstanceCount Platform InstanceType ReservedInstancesId  
MODIFICATION-RESULT us-east-1e 3 EC2-Classic
```

## Related Topics

### Download

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeReservedInstancesModifications](#)

### Related Commands

- [ec2-modify-reserved-instances \(p. 596\)](#)
- [ec2-describe-reserved-instances \(p. 398\)](#)

# ec2-describe-reserved-instances-offerings

## Description

Describes Reserved Instance offerings that are available for purchase. Amazon EC2 Reserved Instances, allow you to reserve computing capacity over a one or three-year term and pay a lower hourly rate compared to On-Demand Instance pricing.

For information about Reserved Instances Pricing Tiers, see [Understanding Reserved Instance Pricing Tiers](#) in the *Amazon EC2 User Guide for Linux Instances*. For more information about Reserved Instances, see [Reserved Instances](#), also in the *Amazon EC2 User Guide for Linux Instances*.

Starting with the 2012-08-15 API version, AWS offers the Reserved Instance Marketplace, where you can buy and sell Reserved Instances. The Reserved Instance Marketplace makes it easy to buy and sell Reserved Instances by matching sellers who own capacity that they no longer need with buyers who are looking to purchase additional capacity. Reserved Instances bought and sold through the Reserved Instance Marketplace work like any other Reserved Instances.

By default, with the 2012-08-15 API version, `ec2-describe-reserved-instances-offerings` returns information about Amazon EC2 Reserved Instances available directly from AWS, plus instance offerings available from third-party sellers, on the Reserved Instance Marketplace. If you are using



tools that predate the 2012-08-15 API version, `ec2-describe-reserved-instances-offerings` only lists information about Reserved Instances available directly from AWS.

For more information, see [Reserved Instance Marketplace](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2drrio**.

**Tip**

If you are using the AWS CLI, see [describe-reserved-instances-offerings](#) instead.

## Syntax

```
ec2-describe-reserved-instances-offerings [offering_id ...] [--type
instance_type ...] [--offering-type offering] [--availability-zone zone ...]
[--description description ...] [--filter "name=value" ...] [--tenancy
tenancy] [--exclude-marketplace] [--min-duration min_duration] [--max-
duration max_duration]
```

## Options

Name	Description
<i>offering_id</i>	The ID of a Reserved Instance offering. Type: String Default: None Required: No Example: 438012d3-4967-4ba9-aa40-cbb1dexample
<code>-t, --type</code> <i>instance_type</i>	The instance type on which the Reserved Instance can be used. Type: String Default: None Required: No Example: -t m1.small
<code>--offering-type</code> <i>offering-type</i>	The Reserved Instance offering type. Type: String Valid values: Heavy Utilization   Medium Utilization   Light Utilization   No Upfront   Partial Upfront   All Upfront Default: None Required: No Example: --offering-type "Medium Utilization"
<code>-z, --availability-zone</code> <i>zone</i>	The Availability Zone in which the Reserved Instance can be used. Type: String Default: None Required: No Example: -z us-east-1a
<code>-d, --description</code> <i>description</i>	The Reserved Instance product platform description. Instances that include (Amazon VPC) in the product platform description will only be displayed to EC2-Classic account holders and are for use with Amazon VPC.

Name	Description
	<p>Type: String</p> <p>Valid values: Linux/UNIX   Linux/UNIX (Amazon VPC)   SUSE Linux   SUSE Linux (Amazon VPC)   Red Hat Enterprise Linux   Red Hat Enterprise Linux (Amazon VPC)   Windows   Windows (Amazon VPC)   Windows with SQL Server Standard   Windows with SQL Server Standard (Amazon VPC)   Windows with SQL Server Web   Windows with SQL Server Web (Amazon VPC)   Windows with SQL Server Enterprise   Windows with SQL Server Enterprise (Amazon VPC)</p> <p>Default: None</p> <p>Required: No</p> <p>Example: -d Linux/UNIX</p>
<p><code>-F, --filter FILTER name=value</code></p>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`").</p> <p>Type: String</p> <p>Default: Describes all your Reserved Instances offerings, or only those you specified.</p> <p>Required: No</p> <p>Example: --filter "instance-type=m1.small"</p>
<p><code>--tenancy tenancy</code></p>	<p>Specifies the tenancy of the Reserved Instance offering. A Reserved Instance with tenancy of <code>dedicated</code> will run on single-tenant hardware and can only be launched within a VPC.</p> <p>Type: String</p> <p>Valid values: <code>default</code>   <code>dedicated</code></p> <p>Default: <code>default</code></p> <p>Required: No</p>
<p><code>--exclude-marketplace</code></p>	<p>Excludes the Reserved Instance Marketplace offerings in the response.</p> <p>Required: No</p>
<p><code>--min-duration min_duration</code></p>	<p>Specifies that only offerings that have a duration of at least <code>min_duration</code> months should be returned.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p>

Name	Description
<code>--max-duration <i>max_duration</i></code>	Specifies that only offerings that have a duration of at most <i>max_duration</i> months should be returned. Type: String Default: None Required: No

## Supported Filters

Our policy is to provide filters for all `ec2-describe` calls so that you can limit the response to your specified criteria. Therefore, you can use filters to limit the response when describing Reserved instances offerings, even though you can use other options instead.

For example, you could use an option or a filter to get the offerings for a specific instance type. You can specify multiple options or filters (for example, limit the response to the `m2.xlarge` instance type, and only for Windows instances). The response includes information for an offering only if it matches all options or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availability-zone`

The Availability Zone where the Reserved instance can be used.

Type: String

`duration`

The duration of the Reserved instance (for example, one year or three years), in seconds.

Type: Long

Valid values: 31536000 | 94608000

`fixed-price`

The purchase price of the Reserved instance (for example, 9800.0).

Type: Double

`instance-type`

The instance type that is covered by the reservation.

Type: String

`marketplace`

Set to `true` to show only Reserved Instance Marketplace offerings. When this filter is not used, which is the default behavior, all offerings from AWS and Reserved Instance Marketplace are listed.

Type: Boolean

`product-description`

The Reserved instance product platform description. Instances that include `(Amazon VPC)` in the product platform description will only be displayed to EC2-Classic account holders and are for use with Amazon VPC.

Type: String

Valid values: Linux/UNIX | Linux/UNIX (Amazon VPC) | SUSE Linux | SUSE Linux (Amazon VPC) | Red Hat Enterprise Linux | Red Hat Enterprise Linux (Amazon VPC) | Windows | Windows (Amazon VPC) | Windows with SQL Server Standard | Windows with SQL Server Standard (Amazon VPC) | Windows with SQL Server

Web | Windows with SQL Server Web (Amazon VPC) | Windows with SQL Server Enterprise | Windows with SQL Server Enterprise (Amazon VPC)

`reserved-instances-offering-id`  
The Reserved instances offering ID.  
Type: String

`usage-price`  
The usage price of the Reserved instance, per hour (for example, 0.84).  
Type: Double

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:

The offering information

- The OFFERING identifier
- The source of the offering (AWS or 3rd Party)
- The offering ID
- The Availability Zone in which the Reserved Instance can be used
- The instance type

- The duration of the Reserved Instance
- The purchase price of the Reserved Instance. This may be contained in one or more subsequent PRICING\_DETAIL rows.
- The usage price of the Reserved Instance, per hour. This may be contained in one or more subsequent RECURRING-CHARGE rows.
- The Reserved Instance description
- The currency of the Reserved Instance. It's specified using the ISO 4217 standard (for example, USD). At this time, the only supported currency is USD.
- The tenancy of the Reserved Instance
- The instance offering type (Heavy Utilization | Medium Utilization | Light Utilization | No Upfront | Partial Upfront | All Upfront)

One or more rows that contain the recurring charge information, if any

- The RECURRING-CHARGE identifier
- The recurring charge frequency
- The recurring charge amount

One or more rows that contain the purchase price detail information, if any

- The PRICING\_DETAIL identifier
- The number of times the purchase price must be paid
- The purchase price of the Reserved Instance

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example Request

Check to see what `m1.small` Reserved Instances are available in a specific region.

```
PROMPT> ec2-describe-reserved-instances-offerings -t m1.small -z sa-east-1b -d Linux/UNIX --headers
```

Amazon EC2 returns output similar to the following example:

```
PROMPT> ec2-describe-reserved-instances-offerings
Type Source ReservedInstancesOfferingId AvailabilityZone InstanceType
Duration FixedPrice UsagePrice ProductDescription Currency InstanceTenancy
OfferingType
OFFERING AWS 4b2293b4-3236-49f5-978d-a74c3example sa-east-1b m1.small 3y
574.0 0.0 Linux/UNIX USD default Heavy Utilization
Type Frequency Amount
RECURRING-CHARGE Hourly 0.021
OFFERING AWS 3a98bf7d-07e1-4b33-8e11-e5314example sa-east-1b m1.small 3y
473.0 0.031 Linux/UNIX USD default Medium Utilization
OFFERING AWS 438012d3-5fc5-4e49-a88e-273edexample sa-east-1b m1.small 3y
203.0 0.055 Linux/UNIX USD default Light Utilization
OFFERING AWS d586503b-bb92-41fa-9065-e5b90example sa-east-1b m1.small 1y
372.94 0.0 Linux/UNIX USD default Heavy Utilization
```

```
Type Frequency Amount
RECURRING-CHARGE Hourly 0.03
OFFERING AWS ceb6a579-b235-41e2-9aad-15a23example sa-east-1b m1.small 1y
 307.13 0.04 Linux/UNIX USD default Medium Utilization
OFFERING AWS 649fd0c8-4ffb-443d-824d-eae3fexample sa-east-1b m1.small 1y
 131.63 0.07 Linux/UNIX USD default Light Utilization
OFFERING 3rd Party b6121943-9faf-4350-8047-bc6d4example sa-east-1b m1.small
 10m - 0.032 Linux/UNIX USD default Medium Utilization
Type Count Price
PRICING_DETAIL 2 $1.2
OFFERING 3rd Party 08edcff2-8143-4c1d-b23c-e4c11example sa-east-1b m1.small
 5m - 0.032 Linux/UNIX USD default Medium Utilization
Type Count Price
PRICING_DETAIL 19 $1.2
PRICING_DETAIL 4 $1.23
```

The preceding output shows a part of the overall offerings that are available.

### Tip

You can filter this list to return only certain types of Reserved Instances offerings of interest to you.

## Example Request

This example filters the response to include only one-year, `m1.small` or `m1.large` Linux/UNIX Reserved instances. If you want Linux/UNIX Reserved instances specifically for use with a VPC, set the product description to `Linux/UNIX (Amazon VPC)`.

```
PROMPT> ec2-describe-reserved-instances-offerings --filter
  "duration=31536000" --filter "instance-type=m1.small" --filter "instance-
type=m1.large" --filter "product-description=Linux/UNIX" -H
Type ReservedInstancesOfferingId AvailabilityZone InstanceType Duration
FixedPrice UsagePrice ProductDescription Currency InstanceTenancy
OfferingType
OFFERING 649fd0c8-7d25-4e81-959e-0e1bcexample us-east-1c m1.large 1y 910.0
 0.12 Linux/UNIX USD default Medium Utilization
OFFERING 438012d3-278f-4ad6-9cb9-e2318example us-east-1b m1.large 1y 910.0
 0.12 Linux/UNIX USD default Medium Utilization
OFFERING 4b2293b4-20f5-4b3d-9969-46341example us-east-1d m1.large 1y 910.0
 0.12 Linux/UNIX USD default Medium Utilization
OFFERING 3a98bf7d-abc6-47a0-870e-e2459example us-east-1a m1.large 1y 910.0
 0.12 Linux/UNIX USD default Medium Utilization
OFFERING ceb6a579-757c-474b-b09b-52c84example us-east-1c m1.small 1y 227.5
 0.03 Linux/UNIX USD default Medium Utilization
OFFERING 60dcfab3-06bb-4b68-9503-53bf8example us-east-1b m1.small 1y 227.5
 0.03 Linux/UNIX USD default Medium Utilization
OFFERING 438012d3-80c7-42c6-9396-a209cexample us-east-1d m1.small 1y 227.5
 0.03 Linux/UNIX USD default Medium Utilization
OFFERING 649fd0c8-5d76-4881-a522-fe522example us-east-1a m1.small 1y 227.5
 0.03 Linux/UNIX USD default Medium Utilization
...
```

## Related Operations

- [ec2-purchase-reserved-instances-offering](#) (p. 619)
- [ec2-describe-reserved-instances](#) (p. 398)

# ec2-describe-route-tables

## Description

Describes one or more of your route tables.

For more information about route tables, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2drtb**.

### Tip

If you are using the AWS CLI, see [describe-route-tables](#) instead.

## Syntax

```
ec2-describe-route-tables [route_table_id...] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>route_table_id</i>	One or more route table IDs. Type: String Default: Describes all your route tables. Required: No Example: rtb-7aa34613
<code>-F, --filter <i>name=value</i></code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>name=valueexample`</i> "). Type: String Default: Describes all your route tables, or only those you specified. Required: No Example: <code>--filter "tag-key=Production"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain tables. For example, you can use a filter to specify that you're interested in the tables associated with a particular subnet. You can specify multiple values for a filter. The response includes information for a table only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify tables that have a specific route and are associated with a specific subnet. The response includes information for a table only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.



You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`association.route-table-association-id`

The ID of an association ID for the route table.

Type: String

`association.route-table-id`

The ID of the route table involved in the association.

Type: String

`association.subnet-id`

The ID of the subnet involved in the association.

Type: String

`association.main`

Indicates whether the route table is the main route table for the VPC.

Type: Boolean

`route-table-id`

The ID of the route table.

Type: String

`route.destination-cidr-block`

The CIDR range specified in a route in the table.

Type: String

`route.destination-prefix-list-id`

The ID of the prefix list of the AWS service specified in a route in the table.

Type: String

`route.gateway-id`

The ID of a gateway specified in a route in the table.

Type: String

`route.instance-id`

The ID of an instance specified in a route in the table.

Type: String

`route.vpc-peering-connection-id`

The ID of a VPC peering connection specified in a route in the table.

Type: String

`route.origin`

Describes how the route was created.

Type: String

Valid values: `CreateRouteTable` | `CreateRoute` | `EnableVgwRoutePropagation`

`CreateRouteTable` indicates that the route was automatically created when the route table was created.

`CreateRoute` indicates that the route was manually added to the route table.

`EnableVgwRoutePropagation` indicates that the route was propagated by route propagation.

`route.state`

The state of a route in the route table. The `blackhole` state indicates that the route's target isn't available (for example, the specified gateway isn't attached to the VPC, the specified NAT instance has been terminated, and so on).

Type: String

Valid values: active | blackhole

**tag-key**

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter "tag-key=Purpose" and the filter "tag-value=X", you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

**tag-value**

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

**tag:key=value**

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

**vpc-id**

The ID of the VPC for the route table.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ROUTETABLE identifier
- The ID of the route table
- The ID of the VPC the route table is in
- The ROUTE identifier
- The route's forwarding target (gateway or NAT instance)
- The route's state (*active* or *blackhole*). Blackhole means the route's forwarding target isn't available (for example, the gateway is detached, the NAT instance is terminated)
- The route's destination CIDR range
- The ASSOCIATION identifier
- The association ID representing the association of the route table to a subnet (or to the VPC if it's the main route table)
- Any tags assigned to the route table
- Network interfaces associated with the route.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the specified route table.

```
PROMPT> ec2-describe-route-tables rtb-6aa34603
ROUTETABLE rtb-6aa34603 vpc-9ea045f7
ec2-describe-route-tables
ROUTETABLE rtb-7f6e8217 vpc-7d6e8215
ROUTE vgw-56clf422 active 13.4.5.0/24 CreateRoute
ROUTE local active 12.12.12.0/24 CreateRouteTable
ROUTE igw-906e82f8 active 0.0.0.0/0 CreateRoute
ROUTE vgw-56clf422 active 13.0.0.0/8 EnableVgwRoutePropagation
ROUTE vgw-56clf422 active 11.0.0.0/8 EnableVgwRoutePropagation
ROUTE vgw-56clf422 active 10.0.0.0/8 EnableVgwRoutePropagation
PROPAGATINGVGW vgw-56clf422
ASSOCIATION rtbassoc-706e8218 main
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)

- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DescribeRouteTables](#)

## Related Commands

- [ec2-associate-route-table \(p. 53\)](#)
- [ec2-delete-route-table \(p. 243\)](#)
- [ec2-disassociate-route-table \(p. 538\)](#)
- [ec2-replace-route-table-association \(p. 651\)](#)

# ec2-describe-snapshot-attribute

## Description

Describes the specified attribute of the specified snapshot. You can specify only one attribute at a time.

The short version of this command is **ec2dsnapatt**.

### Tip

If you are using the AWS CLI, see [describe-snapshot-attribute](#) instead.

## Syntax

`ec2-describe-snapshot-attribute snapshot_id attribute`

## Options

Name	Description
<code>snapshot_id</code>	The ID of the Amazon EBS snapshot. Type: String Default: None Required: Yes Example: snap-78a54011
<code>-c, --create-volume-permission</code>	Describes the create volume permissions of the snapshot. If you don't specify this attribute, you must specify another attribute. Type: String Default: None Required: Conditional Example: -c

Name	Description
<code>-p, --product-code</code>	<p>Describes the product codes associated with the snapshot. Each product code contains a product code and a type. If you don't specify this attribute, you must specify another attribute.</p> <p>Type: String Default: None Required: Conditional Example: <code>-p</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	<p>Includes column headers in the command output.</p>
<code>--show-empty-fields</code>	<p>Shows empty columns as <code>(nil)</code>.</p>

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the snapshot
- The attribute value type
- The attribute value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the permissions for the snapshot with the ID `snap-1a2b3c4d`.

```
PROMPT> ec2-describe-snapshot-attribute snap-1a2b3c4d -c  
createVolumePermission snap-1a2b3c4d userId 111122223333
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSnapshotAttribute](#)

### Related Commands

- [ec2-create-snapshot \(p. 166\)](#)
- [ec2-describe-snapshots \(p. 429\)](#)
- [ec2-modify-snapshot-attribute \(p. 600\)](#)
- [ec2-reset-snapshot-attribute \(p. 680\)](#)

## ec2-describe-snapshots

### Description

Describes one or more of the Amazon EBS snapshots available to you. Snapshots available to you include public snapshots available for any AWS account to launch, private snapshots you own, and private snapshots owned by another AWS account but for which you've been given explicit create volume permissions.

The create volume permissions fall into the following categories.

Permission	Description
public	The owner of the snapshot granted create volume permissions for the snapshot to the <code>all</code> group. All AWS accounts have create volume permissions for these snapshots.



Permission	Description
explicit	The owner of the snapshot granted create volume permissions to a specific AWS account.
implicit	An AWS account has implicit create volume permissions for all snapshots it owns.

You can modify the list of snapshots returned by specifying snapshot IDs, snapshot owners, or AWS accounts with create volume permissions. If you don't specify any options, Amazon EC2 returns all snapshots for which you have create volume permissions.

If you specify one or more snapshot IDs, only snapshots that have the specified IDs are returned. If you specify an invalid snapshot ID, an error is returned. If you specify a snapshot ID for which you do not have access, it will not be included in the returned results.

If you specify one or more snapshot owners, only snapshots from the specified owners and for which you have access are returned. The results can include the AWS account IDs of the specified owners, `amazon` for snapshots owned by Amazon, or `self` for snapshots that you own.

If you specify a list of restorable users, only snapshots with create snapshot permissions for those users are returned. You can specify AWS account IDs (if you own the snapshots), `self` for snapshots for which you own or have explicit permissions, or `all` for public snapshots.

**Tip**

Use the `--help` option to view examples of ways to use this command.

The short version of this command is `ec2dsnap`.

**Tip**

If you are using the AWS CLI, see [describe-snapshots](#) instead.

## Syntax

```
ec2-describe-snapshots [snapshot_id ...] [-a] [-o owner ...] [-r user_id]
[--filter "name=value"] ...]
```

## Options

Name	Description
<i>snapshot_id</i>	One or more snapshot IDs. Type: String Default: Describes all snapshots for which you have launch permissions. Required: No Example: <code>snap-78a54011</code>
<code>-a, --all owner</code>	Describe all snapshots (public, private, or shared) to which you have access. Type: String Default: None Required: No Example: <code>-a</code>
<code>-o, --owner owner</code>	Describes snapshots owned by the specified owner. Multiple owners can be specified. Type: String

Name	Description
	<p>Valid values: <code>self</code>   <code>amazon</code>   <i>AWS account ID</i></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-o AKIAIOSFODNN7EXAMPLE</code></p>
<code>-r, --restorable-by user_id</code>	<p>The ID of an AWS account that can create volumes from the snapshot. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>.</p> <p>Type: String</p> <p>Valid values: <code>self</code>   <code>all</code>   <i>AWS account ID</i></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-r self</code></p>
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("<code>name=value example</code>"). On a Windows system, use quotation marks even without a space in the value string ("<code>name=valueexample</code>"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("<code>"name=valueexample`"</code>").</p> <p>Type: String</p> <p>Default: Describes all snapshots for which you have launch permissions, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "tag-key=Production"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain snapshots. For example, you can use a filter to specify that you're interested in snapshots whose status is `pending`. You can specify multiple values for a filter. The response includes information for a snapshot only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify snapshot's that have a `pending` status, and have a specific tag. The response includes information for a snapshot only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

- `description`  
A description of the snapshot.  
Type: String
- `encrypted`  
The encryption status of the snapshot.

Type: Boolean

owner-alias

Value from an Amazon-maintained list of snapshot owners. Not to be confused with the user-configured AWS account alias, which is set from the IAM console.

Type: String

Valid values: amazon | aws-marketplace | microsoft

owner-id

The ID of the AWS account that owns the snapshot.

Type: String

progress

The progress of the snapshot, as a percentage (for example, 80%).

Type: String

snapshot-id

The snapshot ID.

Type: String

start-time

The time stamp when the snapshot was initiated.

Type: DateTime

status

The status of the snapshot.

Type: String

Valid values: pending | completed | error

tag-key

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:*key=value*

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

volume-id

The ID of the volume that the snapshot is for. Snapshots created by `CopySnapshot` operation have an arbitrary volume ID that should not be used for other purposes.

Type: String

volume-size

The size of the volume, in GiB (for example, 20).

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

1. The snapshot information
  - The SNAPSHOT identifier
  - The ID of the snapshot
  - The ID of the volume. Snapshots created by the CopySnapshot action have an arbitrary volume ID that should not be used for any purpose.
  - The state of the snapshot (`pending`, `completed`, `error`)
  - The time stamp when the snapshot initiated
  - The percentage of completion
  - The ID of the snapshot owner
  - The size of the volume
  - The description of the snapshot
  - The encryption status of the snapshot

- The full ARN of the AWS Key Management Service (AWS KMS) master key that was used to protect the volume encryption key for the volume.
2. Any tags associated with the snapshot
- The TAG identifier
  - The resource type identifier
  - The ID of the resource
  - The tag key
  - The tag value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the snapshot with the ID `snap-1a2b3c4d`.

```
PROMPT> ec2-describe-snapshots snap-1a2b3c4d
SNAPSHOT snap-1a2b3c4d vol-1a2b3c4d completed YYYY-MM-DDTHH:MM:SS.SSSZ 100%
111122223333 15 Daily Backup
TAG snapshot snap-1a2b3c4d Name Test Not Encrypted
```

### Example 2

This example filters the response to include only snapshots with the `pending` status, and that are also tagged with a value that includes the string `db_`.

```
PROMPT> ec2-describe-snapshots --filter "status=pending" --filter "tag-value=*db_*"
SNAPSHOT snap-1a2b3c4d vol-1a2b3c4d pending YYYY-MM-DDTHH:MM:SS.SSSZ 30%
111122223333 15 demo_db_14_backup
TAG snapshot snap-1a2b3c4d Purpose db_14 Not Encrypted
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSnapshots](#)

## Related Commands

- [ec2-create-snapshot](#) (p. 166)
- [ec2-delete-snapshot](#) (p. 246)

# ec2-describe-spot-datafeed-subscription

## Description

Describes the data feed for Spot Instances. For more information, see [Spot Instance Data Feed](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dsds**.

### Tip

If you are using the AWS CLI, see [describe-spot-datafeed-subscription](#) instead.

## Syntax

**ec2-describe-spot-datafeed-subscription**

## Options

This command has no options.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.



Option	Description
	Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The SPOTDATAFEEDSUBSCRIPTION identifier
- The AWS account ID of the owner
- The Amazon S3 bucket where the data feed is located
- The prefix for the data feed file names
- The state (`Active` | `Inactive`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command describes the data feed for the account.

```
PROMPT> ec2-describe-spot-datafeed-subscription  
SPOTDATAFEEDSUBSCRIPTION 111122223333 myawsbucket spotdata_ Active
```

## Related Topics

### Download

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSpotDatafeedSubscription](#)

### Related Commands

- [ec2-create-spot-datafeed-subscription \(p. 170\)](#)
- [ec2-delete-spot-datafeed-subscription \(p. 249\)](#)

# ec2-describe-spot-instance-requests

## Description

Describes the Spot Instance requests that belong to your account. Spot Instances are instances that Amazon EC2 launches when the bid price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information, see [Spot Instance Requests](#) in the *Amazon EC2 User Guide for Linux Instances*.

You can use `ec2-describe-spot-instance-requests` to find a running Spot Instance by examining the response. If the status of the Spot Instance is `fulfilled`, the instance ID appears in the response and contains the identifier of the instance. Alternatively, you can use [ec2-describe-instances](#) (p. 349) with a filter to look for instances where the instance lifecycle is `spot`.

The short version of this command is **ec2dsir**.

### Tip

If you are using the AWS CLI, see [describe-spot-instance-requests](#) instead.

## Syntax

```
ec2-describe-spot-instance-requests [request_id ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<code>request_id</code>	The ID of the Spot Instance request. Type: String Default: None Required: No Example: <code>sir-1a2b3c4d</code>
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ( <code>"name=value example"</code> ). On a Windows system, use quotation marks even without a space in the value string ( <code>"name=valueexample"</code> ). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ( <code>"`"name=valueexample`"</code> ). Type: String Default: Describes all your Spot Instance requests, or those you specified. Required: No Example: <code>--filter "tag-key=Production"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain Spot instance requests. For example, you can use a filter to specify that you're interested in requests where the Spot

Price is a specific value. (You can't use a greater than or less than comparison, however you can use \* and ? wildcards.) You can specify multiple values for a filter. The response includes information for a Spot instance request only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify that the Spot Price is a specific value, and that the instance type is m1.small. The response includes information for a request only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availability-zone-group`

The Availability Zone group. If you specify the same Availability Zone group for all Spot Instance requests, all Spot instances are launched in the same Availability Zone.

Type: String

`create-time`

The time stamp when the Spot instance request was created.

Type: String

`fault-code`

The fault code related to the request.

Type: String

`fault-message`

The fault message related to the request.

Type: String

`instance-id`

The ID of the instance that fulfilled the request.

Type: String

`launch-group`

The Spot instance launch group. Launch groups are Spot instances that launch together and terminate together.

Type: String

`launch.block-device-mapping.delete-on-termination`

Whether the Amazon EBS volume is deleted on instance termination.

Type: Boolean

`launch.block-device-mapping.device-name`

The device name (for example, `/dev/sdh`) for the Amazon EBS volume.

Type: String

`launch.block-device-mapping.snapshot-id`

The ID of the snapshot used for the Amazon EBS volume.

Type: String

`launch.block-device-mapping.volume-size`

The volume size of the Amazon EBS volume, in GiB.

Type: String

`launch.block-device-mapping.volume-type`

The volume type of the Amazon EBS volume.

Type: String

Valid values: `gp2` for General Purpose SSD volumes, `io1` for Provisioned IOPS SSD volumes, and `standard` for Magnetic volumes.

`launch.group-id`

The security group for the instance.

Type: String

`launch.image-id`

The ID of the AMI.

Type: String

`launch.instance-type`

The type of instance (for example, `m1.small`).

Type: String

`launch.kernel-id`

The kernel ID.

Type: String

`launch.key-name`

The name of the key pair the instance launched with.

Type: String

`launch.monitoring-enabled`

Whether monitoring is enabled for the Spot instance.

Type: Boolean

`launch.ramdisk-id`

The RAM disk ID.

Type: String

`network-interface.network-interface-id`

The ID of the network interface.

Type: String

`network-interface.device-index`

The index of the device for the network interface attachment on the instance.

Type: Integer

`network-interface.subnet-id`

The ID of the subnet for the instance.

Type: String

`network-interface.description`

A description of the network interface.

Type: String

`network-interface.private-ip-address`

The primary private IP address of the network interface.

Type: String

`network-interface.delete-on-termination`

Indicates whether the network interface is deleted when the instance is terminated.

Type: Boolean

`network-interface.group-id`

The ID of the security group associated with the network interface.

Type: String

`network-interface.group-name`

The name of the security group associated with the network interface.

Type: String

`network-interface.addresses.primary`  
Indicates whether the IP address is the primary private IP address.  
Type: String

`product-description`  
The product description associated with the instance.  
Type: String  
Valid values: Linux/UNIX | Windows

`spot-instance-request-id`  
The Spot Instance request ID.  
Type: String

`spot-price`  
The maximum hourly price for any Spot instance launched to fulfill the request.  
Type: String

`state`  
The state of the Spot Instance request. Spot bid status information can help you track your Amazon EC2 Spot Instance requests. For information, see [Spot Bid Status](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String  
Valid values: open | active | closed | cancelled | failed

`status-code`  
The short code describing the most recent evaluation of your Spot instance request. For more information, see [Spot Bid Status](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

`status-message`  
The message explaining the status of the Spot instance request.  
Type: String

`tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

`tag-value`  
The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.  
Type: String

`tag:key=value`  
The key/value combination of a tag assigned to the resource.  
Example: To list the resources with the tag `Purpose=X`, use:  
`--filter tag:Purpose=X`  
Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:  
`--filter tag:Purpose=X --filter tag:Purpose=Y`

`type`  
The type of Spot instance request.  
Type: String  
Valid values: one-time | persistent

`launched-availability-zone`  
The Availability Zone in which the bid is launched.  
Type: String

`valid-from`  
The start date of the request.  
Type: DateTime

`valid-until`  
The end date of the request.  
Type: DateTime

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

The Spot Instance request information

- The `SPOTINSTANCEREQUEST` identifier
- The ID of the Spot instance request
- The Spot instance bid price
- The Spot instance type (*one-time or persistent*)

- The product description (Linux/UNIX or Windows)
- The state of the Spot instance request (active, open, closed, cancelled, failed)
- The date and time the request was created
- The date and time that the request is valid until
- The date and time the request will be held until
- The launch group
- The Availability Zone group
- The ID of the instance
- The ID of the image
- The instance type
- The key pair name
- Any security groups the request belongs to
- The Availability Zone the instance belongs to
- The kernel ID of the instance
- The RAM disk ID of the instance
- The monitoring status
- The ID of the subnet
- The Availability Zone the instance was launched to
- The IAM profile

#### Any Spot Instance faults

- The SPOTINSTANCEFAULT identifier
- The Spot instance fault code
- The Spot instance fault message

#### The Spot Instance status information

- The SPOTINSTANCESTATUS identifier
- The Spot instance status
- The date and time of the last update
- The Spot Instance status message

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes all of your Spot Instance requests.

```
PROMPT> ec2-describe-spot-instance-requests
SPOTINSTANCEREQUEST sir-1a2b3c4d 0.040000 one-time Linux/UNIX active YYYY-MM-
DDTHH:MM:SS-0800 i-1a2b3c4d ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d
    monitoring-disabled us-west-2c
SPOTINSTANCESTATUS fulfilled YYYY-MM-DDTHH:MM:SS-0800 Your Spot request is
fulfilled.
```



```
SPOTINSTANCEREQUEST sir-2a2b3c4d 0.040000 one-time Linux/UNIX active YYYY-MM-DDTHH:MM:SS-0800 i-2a2b3c4d ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d monitoring-disabled us-west-2c
SPOTINSTANCESTATUS fulfilled YYYY-MM-DDTHH:MM:SS-0800 Your Spot request is fulfilled.
SPOTINSTANCEREQUEST sir-3a2b3c4d 0.040000 one-time Linux/UNIX active YYYY-MM-DDTHH:MM:SS-0800 i-3a2b3c4d ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d monitoring-disabled us-west-2c
SPOTINSTANCESTATUS fulfilled YYYY-MM-DDTHH:MM:SS-0800 Your Spot request is fulfilled.
```

## Example 2

This example describes all persistent Spot instance requests that have resulted in the launch of at least one `m1.small` instance, that has been fulfilled in the `us-east-1a` Availability Zone, and that also has monitoring enabled.

```
PROMPT> ec2-describe-spot-instance-requests --filter "type=persistent"
--filter "launch.instance-type=m1.small" --filter "launch.monitoring-enabled=true" --filter "launched-availability-zone=us-east-1a"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSpotInstanceRequests](#)

### Related Commands

- [ec2-cancel-spot-instance-requests \(p. 97\)](#)
- [ec2-describe-spot-price-history \(p. 446\)](#)
- [ec2-request-spot-instances \(p. 659\)](#)

## ec2-describe-spot-price-history

### Description

Describes the Spot Price history. The prices returned are listed in chronological order, from the oldest to the most recent, for up to the past 90 days. For more information, see [Spot Instance History](#) in the *Amazon EC2 User Guide for Linux Instances*.

When you use the *start time* and *end time* options, the *describe Spot price history* command returns two pieces of data: the prices of the instance types within the time range that you specified and the time when the price changed. The price is valid within the time period that you specified; the response merely indicates the last time that the price changed.

The short version of this command is **ec2dsph**.

**Tip**

If you are using the AWS CLI, see [describe-spot-price-history](#) instead.

## Syntax

```
ec2-describe-spot-price-history [--start-time timestamp] [--end-time timestamp] [--instance-type type] [--product-description description] [--filter "name=value" ...] [--availability-zone zone]
```

## Options

Name	Description
<code>-s, --start-time <i>timestamp</i></code>	The date and time, up to the past 90 days, from which to start retrieving Spot Instance price history data. Type: DateTime Default: None Required: No Example: <code>-s 2014-12-01T00:00:00.000Z</code>
<code>-e, --end-time <i>timestamp</i></code>	The date and time, up to the current date, from which to stop retrieving the price history data. Type: DateTime Default: None Required: No Example: <code>-e 2014-12-31T11:59:59.000Z</code>
<code>-t, --instance-type <i>type</i></code>	Filters the results by the specified instance type. Type: String Valid values: <code>t1.micro   m1.small   m1.medium   m1.large   m1.xlarge   m3.xlarge   m3.2xlarge   c1.medium   c1.xlarge   c3.4xlarge   c3.8xlarge   cc1.4xlarge   cc2.8xlarge   cg1.4xlarge   cr1.8xlarge   g2.2xlarge   m2.xlarge   m2.2xlarge   m2.4xlarge</code> . For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Default: None Required: No Example: <code>-t m1.large</code>
<code>-d, --product-description <i>description</i></code>	Filters the results by the specified basic product description. Type: String Valid values: <code>Linux/UNIX   SUSE Linux   Windows   Linux/UNIX (Amazon VPC)   SUSE Linux (Amazon VPC)   Windows (Amazon VPC)</code> Default: None Required: No Example: <code>-d "Linux/UNIX"</code>

Name	Description
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`").</p> <p>Type: String</p> <p>Default: Lists all available history information, or just the information you requested.</p> <p>Required: No</p> <p>Example: <code>--filter "product-description=Linux/UNIX"</code></p>
<code>-a, --availability-zone zone</code>	<p>Filters the results by the specified Availability Zone.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-a us-east-1a</code></p>

## Supported Filters

Our policy is to provide filters for all `ec2-describe` calls so you can limit the response to your specified criteria. You can use filters to limit the response when describing Spot Price histories, even though you can use the options instead.

For example, you could use an option or a filter to get the history for a particular instance type. You can specify multiple request parameters or filters (for example, limit the response to the `m2.xlarge` instance type, and only for Windows instances). The response includes information for a price history only if it matches all your options or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

### `instance-type`

The type of instance (for example, `m1.small`).

Type: String

### `product-description`

The product description for the Spot Price.

Type: String

Valid values: `Linux/UNIX | SUSE Linux | Windows | Linux/UNIX (Amazon VPC) | SUSE Linux (Amazon VPC) | Windows (Amazon VPC)`

### `spot-price`

The Spot Price. The value must match exactly (or use wildcards; greater than or less than comparison is not supported).

Type: String

timestamp

The timestamp of the Spot Price history (for example, 2010-08-16T05:06:11.000Z). You can use wildcards (\* and ?). Greater than or less than comparison is not supported.

Type: DateTime

availability-zone

The Availability Zone for which prices should be returned.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `SPOTINSTANCEPRICE` identifier
- The Spot Instance price
- The date and time of the request
- The instance type
- The product description (for example, `Linux/UNIX`)
- The Availability Zone (for example, `us-east-1a`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command returns the Spot Price history for `m1.xlarge` instances for a particular day and time.

```
PROMPT> ec2-describe-spot-price-history -H --instance-type m1.xlarge --start-time 2014-05-06T07:08:09 --end-time 2014-05-06T08:09:10
Type Price Timestamp InstanceType ProductDescription AvailabilityZone
SPOTINSTANCEPRICE 0.417000 2014-05-06T05:54:03-0800 m1.xlarge Windows us-east-1b
SPOTINSTANCEPRICE 0.417000 2014-05-06T05:54:03-0800 m1.xlarge Windows us-east-1d
SPOTINSTANCEPRICE 0.417000 2014-05-06T05:54:03-0800 m1.xlarge Windows us-east-1a
...
```

This example command uses filters to get the same results.

```
PROMPT> ec2-describe-spot-price-history -H --instance-type m1.xlarge --start-time 2014-05-06T07:08:09 --end-time 2014-05-06T08:09:10 --product-description "Linux/UNIX"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSpotPriceHistory](#)

### Related Commands

- [ec2-cancel-spot-instance-requests \(p. 97\)](#)
- [ec2-describe-spot-instance-requests \(p. 439\)](#)
- [ec2-request-spot-instances \(p. 659\)](#)

## ec2-describe-subnets

### Description

Describes one or more of your subnets.

For more information, see [Your VPC and Subnets](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2ds subnet**.

#### Tip

If you are using the AWS CLI, see [describe-subnets](#) instead.

### Syntax

```
ec2-describe-subnets [ subnet_id ... ] [--filter "name=value" ] ...]
```

### Options

Name	Description
<i>subnet_id</i>	One or more subnet IDs. Type: String Default: Describes all your subnets. Required: No Example: subnet-9d4a7b6c
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`"). Type: String Default: Describes all your subnets, or only those you specified. Required: No Example: --filter "tag-key=Production"

### Supported Filters

You can specify filters so that the response includes information for only certain subnets. For example, you can use a filter to specify that you're interested in the subnets in the `available` state. You can specify multiple values for a filter. The response includes information for a subnet only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify subnets that are in a specific VPC and are in the `available` state. The response includes information for a subnet only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availabilityZone`

The Availability Zone for the subnet.

You can also use `availability-zone` as the filter name.

Type: String

`available-ip-address-count`

The number of IP addresses in the subnet that are available.

Type: String

`cidrBlock`

The CIDR block of the subnet. The CIDR block you specify must exactly match the subnet's CIDR block for information to be returned for the subnet.

You can also use `cidr` or `cidr-block` as the filter names.

Type: String

Constraints: Must contain the slash followed by one or two digits (for example, `/28`).

`defaultForAz`

Indicates whether this is the default subnet for the Availability Zone.

You can also use `default-for-az` as the filter name.

Type: Boolean

`state`

The state of the subnet.

Type: String

Valid values: `pending` | `available`

`subnet-id`

The ID of the subnet.

Type: String

`tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

`tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

`tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

`vpc-id`

The ID of the VPC for the subnet.

Type: String



## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each subnet:

- The SUBNET identifier
- The ID of the subnet
- The current state of the subnet (`pending` or `available`)
- The ID of the VPC the subnet is in
- The CIDR block assigned to the subnet
- The number of IP addresses in the subnet that are available
- The Availability Zone the subnet is in
- Default subnet for the Availability Zone (`true` or `false`)
- Instances launched in this subnet receive a public IP address (`true` or `false`)
- Any tags assigned to the subnet

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the subnets with the IDs `subnet-9d4a7b6c` and `subnet-6e7f829e`.

```
PROMPT> ec2-describe-subnets subnet-9d4a7b6c subnet-6e7f829e  
SUBNET subnet-9d4a7b6c available vpc-1a2b3c4d 10.0.1.0/24 251 us-  
east-1a false false  
SUBNET subnet-6e7f829e available vpc-1a2b3c4d 10.0.0.0/24 251 us-  
east-1a false false
```

### Example 2

This example command uses filters to describe any subnet you own that is in the VPC with the ID `vpc-1a2b3c4d` or `vpc-6e7f8a92`, and whose state is `available`. The response indicates that the VPC with the ID `vpc-6e7f8a92` doesn't have any subnets that match.

```
PROMPT> ec2-describe-subnets --filter "vpc-id=vpc-1a2b3c4d" --filter "vpc-  
id=vpc-6e7f8a92" --filter "state=available"  
SUBNET subnet-9d4a7b6c available vpc-1a2b3c4d 10.0.1.0/24 251 us-  
east-1a false false  
SUBNET subnet-6e7f829e available vpc-1a2b3c4d 10.0.0.0/24 251 us-  
east-1a false false
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeSubnets](#)

### Related Commands

- [ec2-create-subnet \(p. 173\)](#)
- [ec2-delete-subnet \(p. 252\)](#)

## ec2-describe-tags

### Description

Describes the tags for your Amazon EC2 resources. For more information, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dtag**.

#### Tip

If you are using the AWS CLI, see [describe-tags](#) instead.

### Syntax

```
ec2-describe-tags [--filter "name=value"] ...]
```

### Options

Name	Description
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample`").</p> <p>Type: String Default: Describes all your tags. Required: No Example: --filter "resource-type=instance"</p>

### Supported Filters

You can specify filters to limit the response when describing tags. For example, you can use a filter to get only the tags for a specific resource type. You can specify multiple values for a filter. The response includes information for a tag only if it matches at least one of the filter values that you specified.

You can specify multiple filters (for example, specify a specific resource type and tag values that contain the string `database`). The response includes information for a tag only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

#### key

The tag key.

Type: String

`resource-id`  
The resource ID.  
Type: String

`resource-type`  
The resource type.  
Type: String  
Valid values: `customer-gateway` | `dhcp-options` | `image` | `instance` | `internet-gateway` | `network-acl` | `network-interface` | `reserved-instances` | `route-table` | `security-group` | `snapshot` | `spot-instances-request` | `subnet` | `volume` | `vpc` | `vpn-connection` | `vpn-gateway`

`value`  
The tag value.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>

Option	Description
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The TAG identifier
- The resource type identifier

- The ID of the resource
- The tag key
- The tag value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes all your tags.

```
PROMPT> ec2-describe-tags
TAG ami-1a2b3c4d image webserver
TAG ami-1a2b3c4d image stack Production
TAG i-5f4e3d2a instance webserver
TAG i-5f4e3d2a instance stack Production
TAG i-12345678 instance database_server
TAG i-12345678 instance stack Test
```

### Example 2

This example command describes the tags for your resource with ID ami-1a2b3c4d.

```
PROMPT> ec2-describe-tags --filter "resource-id=ami-1a2b3c4d"
TAG ami-1a2b3c4d image webserver
TAG ami-1a2b3c4d image stack Production
```

### Example 3

This example command describes the tags for all your instances.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance"
TAG i-5f4e3d2a instance webserver
TAG i-5f4e3d2a instance stack Production
TAG i-12345678 instance database_server
TAG i-12345678 instance stack Test
```

### Example 4

This example command describes the tags for all your instances that have a tag with the key webserver.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter
"key=webserver"
TAG i-5f4e3d2a instance webserver
```

### Example 5

This example command describes the tags for all your instances that have a tag with the key stack and a value of either Test or Production.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter
"key=stack" --filter "value=Test" --filter "value=Production"
TAG i-5f4e3d2a instance stack Production
TAG i-12345678 instance stack Test
```

## Example 6

This example command describes the tags for all your instances that have a tag with the key `Purpose` and no value.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter
"key=Purpose" --filter "value="
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeTags](#)

### Related Commands

- [ec2-create-tags](#) (p. 177)
- [ec2-delete-tags](#) (p. 255)

# ec2-describe-volume-attribute

## Description

Describes the specified attribute of the specified volume. You can specify only one attribute at a time.

The short version of this command is **ec2dvolatt**.

### Tip

If you are using the AWS CLI, see [describe-volume-attribute](#) instead.

## Syntax

```
ec2-describe-volume-attribute volume_id ... { --auto-enable-io | --product-
code }
```



## Options

Name	Description
<code>volume_id</code>	The ID of the volume. Type: String Required: Yes Example: vol-4282672b
<code>-a, --auto-enable-io</code>	Whether auto-enable-io is enabled. Type: Boolean Required: No Example: --auto-enable-io
<code>-p, --product-code</code>	The product codes. Type: String Required: No Example: --product-code

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>

Option	Description
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the volume
- Information about the attribute

Amazon EC2 command line tools display errors on stderr.

## Example

### Example 1

This example command describes the `autoEnableIo` attribute of the volume with the ID `vol-999999`.

```
PROMPT> ec2-describe-volume-attribute vol-999999 -a
VOLUME vol-999999 autoEnableIO
AUTO-ENABLE-IO true
```

### Example 2

This example command describes the `productCodes` attribute of the volume with the ID `vol-777777`.

```
PROMPT> ec2-describe-volume-attribute vol-777777 -p
VolumeId      vol-777777 productCodes
PRODUCT_CODES [marketplace: a1b2c3d4e5f6g7h8i9j10k11]
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVolumeAttribute](#)

### Related Commands

- [ec2-describe-volume-status \(p. 465\)](#)
- [ec2-enable-volume-io \(p. 544\)](#)

- [ec2-modify-volume-attribute](#) (p. 606)

## ec2-describe-volume-status

### Description

Describes the status of one or more volumes. Volume status provides the result of the checks performed on your volumes to determine events that can impair volume performance. The performance of a volume can be affected if an issue occurs on the volume's underlying host. If the volume's underlying host experiences a power outage or system issue, once the system is restored, there could be data inconsistencies on the volume. Volume events notify you if this occurs. Volume action notifies you if any action needs to be taken in response to the event.

The `DescribeVolumeStatus` operation provides the following information about the specified volumes:

**Status:** Reflects the current status of the volume. The possible values are `ok`, `impaired`, or `insufficient-data`. If all checks pass, the overall status of the volume is `ok`. If the check fails, the overall status is `impaired`. If the status is `insufficient-data`, then the checks may still be taking place on your volume at the time. We recommend that you retry the request. For more information on volume status, see [Monitoring the Status of Your Volumes](#).

**Events:** Reflect the cause of a volume status and may require you to take an action. For example, if your volume returns an `impaired` status, then the volume event might be `potential-data-inconsistency`. This means that your volume has been impacted by an issue with the underlying host, has all I/O operations disabled, and may have inconsistent data.

**Actions:** Reflect the actions you may have to take in response to an event. For example, if the status of the volume is `impaired` and the volume event shows `potential-data-inconsistency`, then the action will show `enable-volume-io`. This means that you may want to enable the I/O operations for the volume by issuing the [ec2-enable-volume-io](#) (p. 544) command and then checking the volume for data consistency.

#### Note

Volume status is based on the volume status checks, and does not reflect the volume state. Therefore, volume status does not indicate volumes in the `error` state (for example, when a volume is incapable of accepting I/O.)

The short version of this command is `ec2dvs`.

#### Tip

If you are using the AWS CLI, see [describe-volume-status](#) instead.

### Syntax

```
ec2-describe-volume-status [volume_id ...] [--filter "name=value"] ...]
```

### Options

Name	Description
<i>volume_id</i>	One or more volume IDs. Type: String Default: Describes the status of all your volumes. Required: No Example: vol-4282672b

Name	Description
<code>-F, --filter name=value</code>	<p>A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("name=valueexample").</p> <p>Type: String</p> <p>Default: Describes all your volumes, or only those you specified.</p> <p>Required: No</p> <p>Example: <code>--filter "volume-status.status=Ok"</code></p>

## Supported Filters

You can specify filters so that the response includes information for only certain volumes. For example, you can use a filter to specify that you're interested in volumes that have `impaired` status. You can specify multiple values for a filter. The response includes information for a volume only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify volumes that are in a specific Availability Zone and have the status `impaired`. The response includes information for a volume only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`availability-zone`

The Availability Zone of the instance.

Type: String

`volume-status.status`

The status of the volume.

Type: String

Valid values: `ok | impaired | warning | insufficient-data`

`volume-status.details-name`

The cause for the `volume-status.status`.

Type: String

Valid values: `io-enabled | io-performance`

`volume-status.details-status`

The status of the `volume-status.details-name`.

Type: String

Valid values for `io-enabled`: `passed | failed`

Valid values for `io-performance`: `normal | degraded | severely-degraded | stalled`

`event.description`  
A description of the event.  
Type: String

`event.not-after`  
The latest end time for the event.  
Type: DateTime

`event.not-before`  
The earliest start time for the event.  
Type: DateTime

`event.event-id`  
The event ID.  
Type: String

`event.event-type`  
The event type.  
Type: String  
Valid values for `io-enabled`: `potential-data-inconsistency`  
Valid values for `io-performance`: `io-performance:degraded` | `io-performance:severely-degraded` | `io-performance:stalled`

`action.code`  
The action code for the event, for example, `enable-volume-io`  
Type: String

`action.event-id`  
The event ID associated with the action.  
Type: String

`action.description`  
A description of the action.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.

Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VOLUME identifier
- The ID of the volume
- The Availability Zone in which the volume launched
- The volume status name(Ok, impaired, io-enabled, insufficient-data)
- The EVENT identifier
- The ID of the event
- The event type (`potential-data-inconsistencies`)
- The description of the event
- `notBefore` (the earliest start time of the event)
- `notAfter` (the latest end time of the event)
- The ACTION identifier
- The action code (`enable-volume-io`)
- The ID of the event associated with the action
- The event type associated with the action (`potential-data-inconsistency`)
- The description of the event associated with the action

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the status of the volumes with the IDs `vol-111111` and `vol-222222`.

```
PROMPT> ec2-describe-volume-status vol-111111 vol-222222
Type          VolumeId  AvailabilityZone  VolumeStatus
VOLUME       vol-111111 us-east-1a       ok
VOLUME       vol-222222 us-east-1b       impaired
Type          Name      Status
VOLUMESTATUS io-enabled failed
Type  EventType      NotBefore      NotAfter  EventId
      EventDescription
EVENT potential-data-inconsistency 2011-12-01T14:00:00.000Z
      evol-61a54008 This is an example
```



Type	ActionCode	EventId	EventType
	EventDescription		
ACTION	enable-volume-io	evol-61a54008	potential-data-
inconsistency	This is an example		

## Example 2

This example command describes the volumes you own that have failing I/O operations.

```
PROMPT> ec2-describe-volume-status --filter "volume-status.details-name=io-enabled" --filter "volume-status.details-status=failed"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVolumeStatus](#)

### Related Commands

- [ec2-describe-volume-attribute \(p. 461\)](#)
- [ec2-enable-volume-io \(p. 544\)](#)
- [ec2-modify-volume-attribute \(p. 606\)](#)

# ec2-describe-volumes

## Description

Shows descriptive information for one or more of your Amazon EBS volumes in a particular region. For more information, see [Amazon Elastic Block Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2dvol**.

### Tip

If you are using the AWS CLI, see [describe-volumes](#) instead.

## Syntax

```
ec2-describe-volumes [volume_id ...] [--filter "name=value"] ...]
```

## Options

Name	Description
<code>volume_id</code>	One or more volume IDs. Type: String Default: Describes all your volumes. Required: No Example: vol-4282672b
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your volumes, or only those you specified. Required: No Example: --filter "tag-key=Production"

## Supported Filters

You can specify filters so that the response includes information for only certain volumes. For example, you can use a filter to specify that you're interested in volumes whose status is `available`. You can specify multiple values for a filter. The response includes information for a volume only if it matches at least one of the filter values that you specified.

You can specify multiple filters (for example, specify that the volume is `available`, and has a specific tag). The response includes information for a volume only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\.\.` searches for the literal string `*amazon? \.`

The following are the available filters.

`attachment.attach-time`

The time stamp when the attachment initiated.

Type: DateTime

`attachment.delete-on-termination`

Whether the volume is deleted on instance termination.

Type: Boolean

`attachment.device`

The device name that is exposed to the instance (for example, `/dev/sda1`).

Type: String

`attachment.instance-id`

The ID of the instance the volume is attached to.

Type: String

`attachment.status`  
The attachment state.  
Type: String  
Valid values: `attaching` | `attached` | `detaching` | `detached`

`availability-zone`  
The Availability Zone in which the volume was created.  
Type: String

`create-time`  
The time stamp when the volume was created.  
Type: DateTime

`encrypted`  
The encryption status of the volume.  
Type: Boolean

`iops`  
The number of I/O operations per second (IOPS) that the volume supports. For Provisioned IOPS SSD volumes, this represents the number of IOPS that have been provisioned for the volume. For General Purpose SSD volumes, this represents the baseline performance of the volume and the rate at which the volume accumulates I/O credits for bursting. For more information on General Purpose SSD baseline performance, I/O credits, and bursting, see [Amazon EBS Volume Types](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String  
Valid values: Range is 100 to 20,000 for Provisioned IOPS SSD volumes and 100 to 10,000 for General Purpose SSD volumes.

`size`  
The size of the volume, in GiB (for example, 20).  
Type: String

`snapshot-id`  
The snapshot from which the volume was created.  
Type: String

`status`  
The status of the volume.  
Type: String  
Valid values: `creating` | `available` | `in-use` | `deleting` | `deleted` | `error`

`tag-key`  
The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.  
For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.  
Type: String

`tag-value`  
The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.  
Type: String

`tag:key=value`  
The key/value combination of a tag assigned to the resource.  
Example: To list the resources with the tag `Purpose=X`, use:  
`--filter tag:Purpose=X`

Example: To list resources with the tag Purpose=X or the tag Purpose=Y, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

`volume-id`

The volume ID.

Type: String

`volume-type`

The Amazon EBS volume type.

Type: String

Valid values: `gp2` for General Purpose SSD volumes, `io1` for Provisioned IOPS SSD volumes, and `standard` for Magnetic volumes.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The volume information
  - The `VOLUME` identifier
  - The ID of the volume
  - The size of the volume, in GiBs
  - The ID of the snapshot the volume was created from

- The Availability Zone of the volume
  - The volume status (`creating`, `available`, `in-use`, `deleting`, `deleted`, `error`)
  - The time stamp when volume creation was initiated
  - The Amazon EBS volume type
  - The I/O operations per second (IOPS) provisioned for a Provisioned IOPS SSD volume or the baseline performance IOPS for a General Purpose SSD volume
  - The encryption status of the volume; `Encrypted` for encrypted volumes, `Not Encrypted` for unencrypted volumes.
  - The full ARN of the AWS Key Management Service (AWS KMS) master key that was used to protect the volume encryption key for the volume.
2. Any attachments for the volume
    - The ATTACHMENT identifier
    - The ID of the volume
    - The ID of the instance
    - The device name
    - The attachment state of the volume (`attaching` | `attached` | `detaching` | `detached`)
    - The time stamp when the attachment initiated
    - Whether the volume is set to delete on termination (`true` or `false`)
  3. Any tags associated with the volume
    - The TAG identifier
    - The resource type identifier
    - The ID of the resource
    - The tag key
    - The tag value

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command lists information for all of your volumes in the specified (or default) region.

```
PROMPT> ec2-describe-volumes
VOLUME vol-1a2b3c4d 30 snap-1a2b3c4d us-west-2a available YYYY-MM-DDTHH:MM:SS
+0000 standard Not Encrypted
TAG volume vol-1a2b3c4d Name Volume Name
VOLUME vol-2a2b3c4d 8 snap-2a2b3c4d us-west-2a in-use YYYY-MM-DDTHH:MM:SS
+0000 standard Not Encrypted
ATTACHMENT vol-2a2b3c4d i-1a2b3c4d /dev/sda1 attached YYYY-MM-DDTHH:MM:SS
+0000 true
TAG volume vol-2a2b3c4d Name Second Volume Name
```

### Example 2

This example command describes all volumes that are both attached to the instance with the ID `i-1a2b3c4d` and set to delete when the instance terminates.

```
PROMPT> ec2-describe-volumes --filter "attachment.instance-id=i-1a2b3c4d" --filter "attachment.delete-on-termination=true"
```

```
VOLUME vol-2a2b3c4d 8 snap-2a2b3c4d us-west-2a in-use YYYY-MM-DDTHH:MM:SS
+0000 standard Not Encrypted
ATTACHMENT vol-2a2b3c4d i-1a2b3c4d /dev/sda1 attached YYYY-MM-DDTHH:MM:SS
+0000 true
TAG volume vol-2a2b3c4d Name Second Volume Name
```

## Example 3

This example describes volumes and filters the results by tag. The filter name you use is `tag:key`. This command lists just the volumes belonging to either TeamA or TeamB that contain log data. You can use a wildcard to find the volumes that have a tag with the `Purpose` key and that have a value that contains `Log`.

```
PROMPT> ec2-describe-volumes --filter tag:Owner=TeamA --filter
tag:Owner=TeamB --filter tag:Purpose=*Log*
VOLUME vol-4562dabf 5 us-east-1b available 2010-02-22T22:50:43+0000
Owner TeamA Purpose RawLogData
VOLUME vol-3b3a4c4d 12 us-east-1b available 2010-05-01T13:09:27+0000
Owner TeamB Purpose Logs
```

## Example 4

This example lists only volumes that are in the us-east-1b Availability Zone and have a status of available.

```
PROMPT> ec2-describe-volumes --filter "availability-zone=us-east-1b" --filter
"status=available"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVolumes](#)

### Related Commands

- [ec2-create-snapshot \(p. 166\)](#)
- [ec2-delete-snapshot \(p. 246\)](#)

## ec2-describe-vpc-attribute

### Description

Describes the specified attribute of the specified VPC. You can specify only one attribute at a time.

The short version of this command is **ec2dva**.

**Tip**

If you are using the AWS CLI, see [describe-vpc-attribute](#) instead.

### Syntax

```
ec2-describe-vpc-attribute vpc-id { --dns-support | --dns-hostname }
```

### Options

Name	Description
<i>vpc-id</i>	The ID of the VPC. Type: String Required: Yes Example: vpc-1a2b3c4d
-s, --dns-support	Indicates whether DNS resolution is enabled for the VPC. If this attribute is <code>true</code> , the Amazon DNS server resolves DNS hostnames for your instances to their corresponding IP addresses; otherwise, it does not. Type: String Required: No Example: -s
-d, --dns-hostnames	Indicates whether the instances launched in the VPC get DNS hostnames. If this attribute is <code>true</code> , instances in the VPC get DNS hostnames; otherwise, they do not. Type: String Required: No Example: -d

### Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns the specified VPC attribute.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command describes the `EnableDnsSupport` attribute for the specified VPC.

```
PROMPT> ec2-describe-vpc-attribute vpc-1a2b3c4d --dns-support
```

This example output indicates that DNS resolution is enabled.

```
RETURN true
```

### Example 2

This example command describes the `EnableDnsHostnames` attribute for the specified VPC.

```
PROMPT> ec2-describe-vpc-attribute vpc-1a2b3c4d --dns-hostnames
```

This example output indicates that DNS hostnames are enabled.

```
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DescribeVpcAttribute](#)

## Related Commands

- [ec2-modify-vpc-attribute](#) (p. 609)

# ec2-describe-vpc-classic-link

## Description

Describes the ClassicLink status of one or more VPCs.

The short version of this command is **ec2dvcl**.

### Tip

If you are using the AWS CLI, see [describe-vpc-classic-link](#) instead.

## Syntax

```
ec2-describe-vpc-classic-link [ vpc_id ... ] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>vpc_id</i>	One or more VPCs for which you want to describe the ClassicLink status.  Type: String  Default: Describes the ClassicLink status of all your VPCs.  Required: No  Example: vpc-11122233
<code>-F, --filter <i>name=value</i></code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>name=valueexample`</i> ").  Type: String  Default: Describes the ClassicLink status of all your VPCs.  Required: No

Name	Description
	Example: <code>--filter "tag:purpose=test"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain VPCs. For example, you can use a filter to specify that you're interested in VPCs with specific tags. You can specify multiple values for a filter. The response includes information for a VPC only if it matches at least one of the filter values that you specified.

You can specify multiple filters. The response includes information for a VPC only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`is-classic-link-enabled`

Whether the VPC is enabled for ClassicLink.

Type: Boolean

`tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

`tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

`tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information for each VPC:

- The VPC ID
- Whether the VPC is enabled for ClassicLink (`true` | `false`)
- Any tags associated with the VPC

Amazon EC2 command line tools display errors on stderr.

## Example

### Example 1

This example lists the ClassicLink status of `vpc-88888888`.

```
PROMPT> ec2-describe-vpc-classic-link vpc-88888888
VPC vpc-88888888 true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DescribeVpcClassicLink](#)

## Related Commands

- [ec2-disable-vpc-classic-link](#) (p. 531)
- [ec2-enable-vpc-classic-link](#) (p. 547)
- [ec2-attach-classic-link-vpc](#) (p. 56)
- [ec2-detach-classic-link-vpc](#) (p. 512)
- [ec2-describe-classic-link-instances](#) (p. 300)

# ec2-describe-vpc-endpoints

## Description

Describes one or more of your VPC endpoints.

The short version of this command is **ec2dve**.

### Tip

If you are using the AWS CLI, see [describe-vpc-endpoints](#) instead.

## Syntax

```
ec2-describe-vpc-endpoints [vpce ... ] [--filter "name=value"] ...]
```

## Options

Name	Description
<i>vpce</i>	One or more endpoint IDs. Type: String Default: Describes all your endpoints. Required: No Example: vpc-1a2b3c4d
<code>-F, --filter <i>name=value</i></code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>"name=valueexample`"</i> "). Type: String Required: No Example: <code>--filter vpc-id=vpc-1a2b3c4d</code>

## Supported Filters

You can specify filters so that the response includes information for only certain endpoints. For example, you can use a filter to specify that you're interested in endpoints for a specific VPC. You can specify multiple values for a filter. The response includes information for an endpoint only if it matches at least one of the filter values that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`vpc-id`

The ID of the VPC that contains the endpoint.

Type: String

`vpc-endpoint-id`

The ID of the endpoint.

Type: String

`vpc-endpoint-state`

The state of the endpoint.

Type: String

Valid values: `pending` | `available` | `deleting` | `deleted`

`service-name`

The prefix list name of the AWS service.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.



Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each request:

- The endpoint information:
  - The VPCENDPOINT identifier
  - The endpoint ID
  - The VPC ID
  - The AWS service name
  - The state of the endpoint
  - A timestamp
  - The policy document
- The route table information:
  - The ROUTETABLE identifier
  - The route table ID

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example describes all of your endpoints.

```
PROMPT> ec2-describe-vpc-endpoints
VPCENDPOINT vpce-abc12345 vpc-1a2b3c4d com.amazonaws.us-west-2.s3 available
  Fri Feb 20 16:54:29 SAST 2015 {"Version":"2008-10-17","Statement":
[{"Sid":"","Effect":"Deny","Principal":"*","Action":"*","Resource":"*"}]}
ROUTETABLE rtb-123abc12
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DescribeVpcEndpoints](#)

## Related Commands

- [ec2-create-vpc-endpoint](#) (p. 190)
- [ec2-delete-vpc-endpoints](#) (p. 264)
- [ec2-describe-prefix-lists](#) (p. 390)
- [ec2-describe-vpc-endpoint-services](#) (p. 488)
- [ec2-modify-vpc-endpoint](#) (p. 613)

# ec2-describe-vpc-endpoint-services

## Description

Describes all supported AWS services that can be specified when creating a VPC endpoint.

The short version of this command is **ec2dves**.

### Tip

If you are using the AWS CLI, see [describe-vpc-endpoint-services](#) instead.

## Syntax

```
ec2-describe-vpc-endpoint-services
```

## Options

This command has no options.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each request:

- Information about the endpoint service
  - The `VPCENDPOINTSERVICE` identifier
  - The name of the service

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example describes all available endpoint services.

```
PROMPT> ec2-describe-vpc-endpoint-services  
VPCENDPOINTSERVICE com.amazonaws.us-east-1.s3
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVpcEndpointServices](#)

## Related Commands

- [ec2-create-vpc-endpoint](#) (p. 190)
- [ec2-delete-vpc-endpoints](#) (p. 264)
- [ec2-describe-prefix-lists](#) (p. 390)
- [ec2-describe-vpc-endpoints](#) (p. 484)
- [ec2-modify-vpc-endpoint](#) (p. 613)

# ec2-describe-vpc-peering-connections

## Description

Describes one or more of your VPC peering connections.

The short version of this command is **ec2dpcx**.

### Tip

If you are using the AWS CLI, see [describe-vpc-peering-connections](#) instead.

## Syntax

```
ec2-describe-vpc-peering-connections [ vpc_peering_connection ... ] [--  
filter "name=value"] ...]
```

## Options

Name	Description
<i>vpc_peering_connection</i>	One or more VPC peering connection IDs. Type: String Default: Describes all your VPC peering connections Required: No Example: pcx-1a2b3c4d
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>name=valueexample`</i> "). Type: String Default: Describes all your peering connections, or only those you specified. Required: No Example: <code>--filter "tag-key=Peering1"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain VPC peering connections. For example, you can use a filter to specify that you're interested in VPC peering connections in the `active` state. You can specify multiple values for a filter. The response includes information for a peering connection only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify the VPC peering connections that you have with a specific AWS account owner that are in the `active` state. The results include information for a peering connection only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon?\` searches for the literal string `*amazon?`.

The following are the available filters.

`accepter-vpc-info.cidr-block`

The CIDR block of the peer VPC.

Type: String

Constraints: Must contain the slash followed by one or two digits (for example, `/28`)

`accepter-vpc-info.owner-id`

The AWS account ID of the owner of the peer VPC.

Type: String

`accepter-vpc-info.vpc-id`

The ID of the peer VPC.

Type: String

`expiration-time`

The expiration date and time for the VPC peering connection.

Type: DateTime

`requester-vpc-info.cidr-block`

The CIDR block of the requester's VPC.

Type: String

`requester-vpc-info.owner-id`

The AWS account ID of the owner of the requester VPC.

Type: String

`requester-vpc-info.vpc-id`

The ID of the requester VPC.

Type: String

`status-code`

The status of the VPC peering connection.

Type: String

Valid values: `pending-acceptance` | `failed` | `expired` | `provisioning` | `active` | `deleted` | `rejected`

`status-message`

A message that provides more information about the status of the VPC peering connection, if applicable.

Type: String

`tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any

resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

`tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

`tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

`vpc-peering-connection-id`

The ID of the VPC peering connection.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>



Option	Description
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each peering connection:

- The VPC peering connection information
  - The VPCPEERINGCONNECTION identifier
  - The VPC peering connection ID
  - The expiry date of the VPC peering connection request, if the status is `pending-acceptance`
  - The status of the VPC peering connection request
- The requester VPC information
  - The REQUESTERVPCINFO identifier
  - The VPC ID
  - The CIDR block
  - The AWS account ID
- The peer VPC information
  - The ACCEPTERVPCINFO identifier
  - The VPC ID
  - The CIDR block, if the status of the peering connection is `active`
  - The AWS account ID
- The tag information, if applicable
  - The TAG identifier
  - The tag information for the VPC peering connection

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example describes all of your VPC peering connections.

```
PROMPT> ec2-describe-vpc-peering-connections
VPCPEERINGCONNECTION pcx-111aaa11 active: Active
REQUESTERVPCINFO vpc-123abc12 10.0.1.0/28 111122223333
ACCEPTERVPCINFO vpc-456def45 10.0.0.0/28 111122223333
VPCPEERINGCONNECTION pcx-111bbb11 Mon Feb 17 15:09:01 SAST 2014 pending-
acceptance: Pending Acceptance by 123456789012
REQUESTERVPCINFO vpc-1b2b3b4b 10.0.0.0/28 111122223333
ACCEPTERVPCINFO vpc-1c2c3c4c 123456789012
VPCPEERINGCONNECTION pcx-111ccc33 failed: Failed
REQUESTERVPCINFO vpc-aaa123aa 10.0.0.0/28 111122223333
ACCEPTERVPCINFO vpc-bbb456bb 777788889999
VPCPEERINGCONNECTION pcx-111ddd44 rejected: Rejected by 777788889999
REQUESTERVPCINFO vpc-1112223a 10.0.1.0/28 111122223333
ACCEPTERVPCINFO vpc-2223334b 777788889999
```

### Example 2

This example describes all of your VPC peering connections that are in the `pending-acceptance` state.

```
PROMPT> ec2-describe-vpc-peering-connections --filter status-code=pending-acceptance  
VPCPEERINGCONNECTION pcx-111bbb11 Mon Feb 17 15:09:01 SAST 2014 pending-acceptance: Pending Acceptance by 123456789012  
REQUESTERVPCINFO vpc-1b2b3b4b 10.0.0.0/28 111122223333  
ACCEPTERVPCINFO vpc-1c2c3c4c 123456789012
```

## Example 3

This example describes all of your VPC peering connections that have the tag `Name=Finance` or `Name=Accounts`.

```
PROMPT> ec2-describe-vpc-peering-connections --filter tag:Name=Finance --filter tag:Name=Accounts  
VPCPEERINGCONNECTION pcx-11122233 active: Active  
REQUESTERVPCINFO vpc-11aa22bb 10.0.0.0/28 111122223333  
ACCEPTERVPCINFO vpc-cc33dd44 10.0.1.0/28 444455556666  
TAG Name Finance
```

## Example 4

This example describes all of the VPC peering connections for your specified VPC, `vpc-1a2b3c4d`.

```
PROMPT> ec2-describe-vpc-peering-connections --filter requester-vpc-info.vpc-id=vpc-1a2b3c4d  
VPCPEERINGCONNECTION pcx-1111aaaa deleted: Deleted by 123456789012  
REQUESTERVPCINFO vpc-1a2b3c4d 10.0.0.0/28 123456789012  
ACCEPTERVPCINFO vpc-123abc12 10.0.1.0/28 123456789012  
TAG Test  
VPCPEERINGCONNECTION pcx-2222bbbb active: Active  
REQUESTERVPCINFO vpc-1a2b3c4d 10.0.0.0/28 123456789012  
ACCEPTERVPCINFO vpc-234cde23 172.16.0.0/16 444455556666  
TAG Name Production  
VPCPEERINGCONNECTION pcx-3333cccc failed: Failed  
REQUESTERVPCINFO vpc-1a2b3c4d 10.0.0.0/28 123456789012  
ACCEPTERVPCINFO vpc-345fgh34 111122223333
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVpcPeeringConnections](#)

## Related Commands

- [ec2-accept-vpc-peering-connection](#) (p. 34)
- [ec2-delete-vpc-peering-connection](#) (p. 267)
- [ec2-create-vpc-peering-connection](#) (p. 194)
- [ec2-reject-vpc-peering-connection](#) (p. 633)
- [ec2-create-route](#) (p. 159)
- [ec2-replace-route](#) (p. 647)

# ec2-describe-vpcs

## Description

Describes one or more of your VPCs.

The short version of this command is **ec2dvp**.

### Tip

If you are using the AWS CLI, see [describe-vpcs](#) instead.

## Syntax

```
ec2-describe-vpcs [ vpc_id ... ] [ [--filter "name=value"] ... ]
```

## Options

Name	Description
<i>vpc_id</i>	One or more VPC IDs. Type: String Default: Describes all your VPCs. Required: No Example: vpc-1a2b3c4d
<code>-F, --filter <i>name=value</i></code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space (" <i>name=value example</i> "). On a Windows system, use quotation marks even without a space in the value string (" <i>name=valueexample</i> "). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks (" <i>name=valueexample`</i> "). Type: String Default: Describes all your VPCs, or only those you specified. Required: No Example: <code>--filter "tag-key=Production"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain VPCs. For example, you can use a filter to specify that you're interested in VPCs in the `available` state. You can specify multiple values for a filter. The response includes information for a VPC only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify VPCs that use one of several sets of DHCP options and are in the `available` state. The results include information for a VPC only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

### `cidr`

The CIDR block of the VPC. The CIDR block you specify must exactly match the VPC's CIDR block for information to be returned for the VPC.

Type: String

Constraints: Must contain the slash followed by one or two digits (for example, `/28`)

### `dhcp-options-id`

The ID of a set of DHCP options.

Type: String

### `isDefault`

Indicates whether the VPC is the default VPC.

Type: Boolean

### `state`

The state of the VPC.

Type: String

Valid values: `pending` | `available`

### `tag-key`

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

### `tag-value`

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

### `tag:key=value`

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

`vpc-id`  
The ID of the VPC.  
Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the

Option	Description
	required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each VPC:

- The VPC identifier
- The ID of the VPC
- The current state of the VPC (`pending` or `available`)
- The CIDR block of the VPC
- The ID of the DHCP options associated with the VPC (or `default` if none)
- Any tags assigned to the VPC
- The allowed tenancy of instances launched into the VPC (`default` or `dedicated`)
- Default VPC (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command describes the specified VPC.

```
PROMPT> ec2-describe-vpcs vpc-1a2b3c4d
VPC vpc-1a2b3c4d available 10.0.0.0/23 dopt-7a8b9c2d default false
```

### Example 2

This example command uses filters to describe any VPC you own that uses the set of DHCP options with the ID `dopt-7a8b9c2d` or `dopt-2b2a3d3c` and whose state is available.

```
PROMPT> ec2-describe-vpcs --filter "dhcp-options-id=dopt-7a8b9c2d" --filter
"dhcp-options-id=dopt-2b2a3d3c" --filter "state=available"
VPC vpc-1a2b3c4d available 10.0.0.0/23 dopt-7a8b9c2d default false
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVpcs](#)

### Related Commands

- [ec2-create-vpc \(p. 186\)](#)
- [ec2-delete-vpc \(p. 261\)](#)
- [ec2-associate-dhcp-options \(p. 49\)](#)
- [ec2-create-dhcp-options \(p. 115\)](#)

## ec2-describe-vpn-connections

### Description

Describes one or more of your VPN connections.



For VPN connections in the `pending` or `available` state only, you can also optionally get the configuration information for the VPN connection's customer gateway. You do this by specifying a format with the `--format` option, or by specifying an XSL stylesheet of your own design with the `--stylesheet` option (you were also able to do this when you created the VPN connection).

For more information about VPN connections, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2dvpn**.

**Tip**

If you are using the AWS CLI, see [describe-vpn-connections](#) instead.

## Syntax

```
ec2-describe-vpn-connections [vpn_connection_id ... ] [{"--format format"} |
{"--stylesheet your_stylesheet"}] [{"--filter "name=value"} ...]
```

## Options

Name	Description
<code>vpn_connection_id</code>	One or more VPN connection IDs. Type: String Default: Describes all your VPN connections. Required: No Example: vpn-44a8938f
<code>--format format</code>	Includes customer gateway configuration information in the response, in the format specified by this option. The information is returned only if the VPN connection is in the pending or available state. The returned information can be formatted for various devices, including a Cisco device (cisco-ios-isr) or Juniper device (juniper-junos-j), in human readable format (generic), or in the native XML format (xml). Type: String Valid values: cisco-ios-isr   juniper-junos-j   juniper-screensos-6.2   juniper-screensos-6.1   generic   xml Default: None Required: No Example: --format cisco-ios-isr
<code>--stylesheet your_stylesheet</code>	Includes customer gateway configuration information in the response, formatted according to the custom XSL stylesheet you specify with this option. The information is returned only if the VPN connection is in the pending or available state. Type: String Default: None Required: No Example: --stylesheet c:\my_stylesheet.xml
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values

Name	Description
	<p>are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`").</p> <p>Type: String</p> <p>Default: Describes all your VPN connections, or only those you specified.</p> <p>Required: No</p> <p>Example: --filter "tag-key=Production"</p>

## Supported Filters

You can specify filters so that the response includes information for only certain VPN connections. For example, you can use a filter to specify that you're interested in the VPN connections in the `pending` or `available` state. You can specify multiple values for a filter. The response includes information for a VPN connection only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify VPN connections that are associated with a specific virtual private gateway, and the gateway is in the `pending` or `available` state. The response includes information for a VPN connection only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`customer-gateway-configuration`

The configuration information for the customer gateway.

Type: String

`customer-gateway-id`

The ID of a customer gateway associated with the VPN connection.

Type: String

`state`

The state of the VPN connection.

Type: String

Valid values: `pending` | `available` | `deleting` | `deleted`

`option.static-routes-only`

Indicates whether the connection has static routes only. Used for devices that do not support Border Gateway Protocol (BGP).

Type: Boolean

`route.destination-cidr-block`

The destination CIDR block. This corresponds to the subnet used in a customer data center.

Type: String

`bgp-asn`

The BGP Autonomous System Number (ASN) associated with a BGP device.

Type: Integer

tag-key

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `"tag-key=Purpose"` and the filter `"tag-value=X"`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where `Purpose` is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:key=value

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

type

The type of VPN connection. Currently the only supported type is `ipsec.1`.

Type: String

Valid values: `ipsec.1`

vpn-connection-id

The ID of the VPN connection.

Type: String

vpn-gateway-id

The ID of a virtual private gateway associated with the VPN connection.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key.

Option	Description
	<p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	<p>Reads arguments from standard input. This is useful when piping the output from one command to the input of another.</p> <p>Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code></p>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `VPNCONNECTION` identifier
- The ID of the VPN connection
- The type of VPN connection
- The ID of the customer gateway
- The ID of the virtual private gateway
- The state of the VPN connection (`pending`, `available`, `deleting`, `deleted`)
- Configuration information for the customer gateway (optional and available only if the VPN connection is in the `pending` or `available` state)
- Any tags assigned to the VPN connection

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command describes the specified VPN connection. The example specifies that the configuration information be formatted as needed for a Cisco customer gateway. Because it's a long set of information, we haven't displayed it here in the output. To see an example of the configuration information, see the [Amazon VPC Network Administrator Guide](#).

```
PROMPT> ec2-describe-vpn-connections vpn-44a8938f --format cisco-ios-isr
VPNCONNECTION vpn-44a8938f ipsec.1 vgw-8db04f81 cgw-b4dc3961 available

<Long customer gateway configuration data formatted for Cisco device... >
```

### Example 2

This example command uses filters to describe any VPN connection you own that is associated with the customer gateway with the ID `cgw-b4dc3961`, and whose state is either `pending` or `available`. Note that it doesn't use the option that causes the output to include the customer gateway configuration.

```
PROMPT> ec2-describe-vpn-connections --filter "customer-gateway-id=cgw-b4dc3961" --filter "state=pending" --filter "state=available"
```

```
VPNCONNECTION vpn-44a8938f ipsec.1 vgw-8db04f81 cgw-b4dc3961 available
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVpnConnections](#)

### Related Commands

- [ec2-create-vpn-connection \(p. 198\)](#)
- [ec2-delete-vpn-connection \(p. 270\)](#)

# ec2-describe-vpn-gateways

## Description

Describes the specified virtual private gateways.

For more information about virtual private gateways, see [Adding a Hardware Virtual Private Gateway to Your VPC](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2dvgw**.

### Tip

If you are using the AWS CLI, see [describe-vpn-gateways](#) instead.

## Syntax

```
ec2-describe-vpn-gateways [vpn_gateway_id ... ] [--filter  
"name=value"] ...]
```

## Options

Name	Description
<i>vpn_gateway_id</i>	One or more virtual private gateway IDs. Type: String

Name	Description
	Default: Describes all your virtual private gateways. Required: No Example: vgw-8db04f81
<code>-F, --filter name=value</code>	A filter for limiting the results. For more information, see the Supported Filters section. Filter names and values are case-sensitive. Use quotation marks if the value string has a space ("name=value example"). On a Windows system, use quotation marks even without a space in the value string ("name=valueexample"). If you are using Windows Powershell, you might need to use a second set of quotation marks, escaped with backticks ("`name=valueexample`"). Type: String Default: Describes all your virtual private gateways, or only those you specified. Required: No Example: <code>--filter "tag-key=Production"</code>

## Supported Filters

You can specify filters so that the response includes information for only certain virtual private gateways. For example, you can use a filter to specify that you're interested in the virtual private gateways in the `pending` or `available` state. You can specify multiple values for a filter. The response includes information for a virtual private gateway only if it matches at least one of the filter values that you specified.

You can specify multiple filters; for example, specify virtual private gateways that are in a specific Availability Zone and are in the `pending` or `available` state. The response includes information for a virtual private gateway only if it matches all the filters that you specified. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards in a filter value. An asterisk (\*) matches zero or more characters, and a question mark (?) matches exactly one character. You can escape special characters using a backslash (\) before the character. For example, a value of `\*amazon\?\` searches for the literal string `*amazon?`.

The following are the available filters.

`attachment.state`

The current state of the attachment between the gateway and the VPC.

Type: String

Valid values: `attaching` | `attached` | `detaching` | `detached`

`attachment.vpc-id`

The ID of an attached VPC.

Type: String

`availability-zone`

The Availability Zone for the virtual private gateway.

Type: String

`state`

The state of the virtual private gateway.

Type: String

Valid values: pending | available | deleting | deleted

tag-key

The key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter "tag-key=Purpose" and the filter "tag-value=X", you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose is `X`, see the `tag:key=value` filter.

For more information about tags, see [Tagging Your Resources](#) in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

tag-value

The value of a tag assigned to the resource. This filter is independent of the `tag-key` filter.

Type: String

tag:*key=value*

The key/value combination of a tag assigned to the resource.

Example: To list the resources with the tag `Purpose=X`, use:

```
--filter tag:Purpose=X
```

Example: To list resources with the tag `Purpose=X` or the tag `Purpose=Y`, use:

```
--filter tag:Purpose=X --filter tag:Purpose=Y
```

type

The type of virtual private gateway. Currently the only supported type is `ipsec.1`.

Type: String

Valid values: ipsec.1

vpn-gateway-id

The ID of the virtual private gateway.

Type: String

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.



Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPNGATEWAY identifier
- The ID of the virtual private gateway
- The state of the virtual private gateway (`pending`, `available`, `deleting`, `deleted`)
- The Availability Zone where the virtual private gateway was created
- The type of VPN connection the virtual private gateway supports
- The VGWATTACHMENT identifier
- The ID of each attached VPC and the state of each attachment (`attaching`, `attached`, `detaching`, `detached`)
- Any tags assigned to the virtual private gateway

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example command describes the specified virtual private gateway.

```
PROMPT> ec2-describe-vpn-gateways vgw-8db04f81
VPNGATEWAY vgw-8db04f81 available us-east-1a ipsec.1
VGWATTACHMENT vpc-1a2b3c4d attached
```

### Example 2

This example command uses filters to describe any virtual private gateway you own that is in the `us-east-1a` Availability Zone, and whose state is either `pending` or `available`.

```
PROMPT> ec2-describe-vpn-gateways --filter "availability-zone=us-east-1a" --filter "state=pending" --filter "state=available"
VPNGATEWAY vgw-8db04f81 available ipsec.1
VGWATTACHMENT vpc-1a2b3c4d attached
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)

- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeVpnGateways](#)

### Related Commands

- [ec2-create-vpn-gateway \(p. 205\)](#)
- [ec2-delete-vpn-gateway \(p. 276\)](#)

## ec2-detach-classic-link-vpc

### Description

Unlinks (detaches) a linked EC2-Classical instance from a VPC. After the instance has been unlinked, the VPC's security groups are no longer associated with it. An instance is automatically unlinked from a VPC when it's stopped.

The short version of this command is **ec2detachcli**.

#### Tip

If you are using the AWS CLI, see [detach-classic-link-vpc](#) instead.

### Syntax

```
ec2-detach-classic-link-vpc --instance-id instance_id --vpc-id vpc_id
```

### Options

Name	Description
<code>-i instance_id</code>	The ID of the instance to unlink from the VPC. Type: String Default: None Required: Yes Example: -i i-1a2b3c4d
<code>-c vpc_id</code>	The ID of the VPC to which the instance is linked. Type: String Default: None Required: Yes

Name	Description
	Example: <code>-c vpc-11122233</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example 1

This example unlinks instance `i-1a2b3c4d` from VPC `vpc-88888888`.

```
PROMPT> ec2-detach-classic-link-vpc -i i-1a2b3c4d -c vpc-88888888  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DetachClassicLinkVpc](#)

### Related Commands

- [ec2-disable-vpc-classic-link \(p. 531\)](#)
- [ec2-enable-vpc-classic-link \(p. 547\)](#)
- [ec2-attach-classic-link-vpc \(p. 56\)](#)
- [ec2-describe-classic-link-instances \(p. 300\)](#)
- [ec2-describe-vpc-classic-link \(p. 480\)](#)

## ec2-detach-internet-gateway

### Description

Detaches the specified Internet gateway from the specified VPC, disabling connectivity between the Internet and the VPC. The VPC must not contain a running instance with an Elastic IP address.

The short version of this command is **ec2detigw**.

#### Tip

If you are using the AWS CLI, see [detach-internet-gateway](#) instead.

### Syntax

```
ec2-detach-internet-gateway vpn_gateway_id -c vpc_id
```

### Options

Name	Description
<i>vpn_gateway_id</i>	The ID of the Internet gateway. Type: String Default: None Required: Yes

Name	Description
	Example: igw-8db04f81
<code>-c, --vpc vpc_id</code>	The ID of the VPC. Type: String Default: None Required: Yes Example: <code>-c vpc-1a2b3c4d</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.

Option	Description
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.



## Examples

### Example

This example command detaches the specified Internet gateway from the specified VPC.

```
PROMPT> ec2-detach-internet-gateway igw-eaad4883 -c vpc-11ad4878  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DetachInternetGateway](#)

### Related Commands

- [ec2-attach-internet-gateway \(p. 60\)](#)
- [ec2-create-internet-gateway \(p. 133\)](#)
- [ec2-delete-internet-gateway \(p. 221\)](#)
- [ec2-describe-internet-gateways \(p. 362\)](#)

## ec2-detach-network-interface

### Description

Detaches the specified network interface from the specified instance.

The short version of this command is **ec2detnic**.

#### Tip

If you are using the AWS CLI, see [detach-network-interface](#) instead.

### Syntax

```
ec2-detach-network-interface attachment_id [--force]
```

## Options

Name	Description
<code>attachment_id</code>	The ID of the network attachment. Type: String Default: None Required: Yes Example: eni-attach-083fda61
<code>-f, --force</code>	Forces the detachment. Type: String Default: None Required: No

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>

Option	Description
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ATTACHMENT identifier
- The ID of the network interface
- The attachment state of the volume (`attaching` | `attached` | `detaching` | `detached`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command detaches the specified network interface from the instance it's attached to.

```
PROMPT> ec2-detach-network-interface eni-attach-083fda61  
  
ATTACHMENT      eni-attach-083fda61      detaching
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DetachNetworkInterface](#)

### Related Commands

- [ec2-attach-network-interface \(p. 63\)](#)
- [ec2-create-network-interface \(p. 147\)](#)
- [ec2-delete-network-interface \(p. 234\)](#)
- [ec2-describe-network-interface-attribute \(p. 376\)](#)
- [ec2-describe-network-interfaces \(p. 379\)](#)
- [ec2-modify-network-interface-attribute \(p. 591\)](#)
- [ec2-reset-network-interface-attribute \(p. 677\)](#)

## ec2-detach-volume

### Description

Detaches the specified Amazon EBS volume from an instance. Make sure to unmount any file systems on the device within your operating system before detaching the volume. Failure to do so will result in the volume being stuck in "busy" state while detaching.

### Note

If an Amazon EBS volume is the root device of an instance, it can't be detached while the instance is in the `running` state. To detach the root volume, stop the instance first. When a volume with an AWS Marketplace product code is detached from an instance, the product code is no longer associated with the instance.

For more information, see [Amazon Elastic Block Store](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2detvol**.

### Tip

If you are using the AWS CLI, see [detach-volume](#) instead.

## Syntax

```
ec2-detach-volume volume_id [--instance instance_id [--device device]] [--force]
```

## Options

Name	Description
<i>volume_id</i>	The ID of the volume. Type: String Default: None Required: Yes Example: vol-4282672b
<code>-i, --instance <i>instance_id</i></code>	The ID of the instance. Type: String Default: None Required: No Example: -i i-6058a509
<code>-d, --device <i>device</i></code>	The device name. Type: String Default: None Required: No Example: -d /dev/sdh
<code>-f, --force</code>	Forces detachment if the previous detachment attempt did not occur cleanly (logging into an instance, unmounting the volume, and detaching normally). This option can lead to data loss or a corrupted file system. Use this option only as a last resort to detach a volume from a failed instance. The instance will not have an opportunity to flush file system caches or file system metadata. If you use this option, you must perform file system check and repair procedures. Type: Boolean Default: None Required: No Example: -f

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ATTACHMENT identifier
- The ID of the volume
- The ID of the instance
- The device name
- The attachment state of the volume (`attaching` | `attached` | `detaching` | `detached`)
- The time stamp when the attachment initiated
- Whether the volume is set to delete on termination (`true` or `false`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command detaches the volume with the ID `vol-1a2b3c4d` from the instance it's attached to.

```
PROMPT> ec2-detach-volume vol-1a2b3c4d  
ATTACHMENT vol-1a2b3c4d i-1a2b3c4d /dev/sdh detaching YYYY-MM-DDTHH:MM:SS  
+0000
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DetachVolume](#)

### Related Commands

- [ec2-attach-volume](#) (p. 66)
- [ec2-create-volume](#) (p. 180)
- [ec2-delete-volume](#) (p. 258)
- [ec2-describe-volumes](#) (p. 470)

## ec2-detach-vpn-gateway

### Description

Detaches the specified virtual private gateway from a VPC. You do this if you're planning to turn off the VPC and not use it anymore. You can confirm a virtual private gateway has been completely detached from a VPC by describing the virtual private gateway (any attachments to the virtual private gateway are also described).

You must wait for the attachment's state to switch to `detached` before you can delete the VPC or attach a different VPC to the virtual private gateway.

The short version of this command is **ec2detvgw**.



**Tip**

If you are using the AWS CLI, see [detach-vpn-gateway](#) instead.

## Syntax

`ec2-detach-vpn-gateway vpn_gateway_id -c vpc_id`

## Options

Name	Description
<code>vpn_gateway_id</code>	The ID of the virtual private gateway. Type: String Default: None Required: Yes Example: vgw-8db04f81
<code>-c vpc_id</code>	The ID of the VPC. Type: String Default: None Required: Yes Example: -c vpc-1a2b3c4d

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The VPNGATEWAY identifier
- The ID of the VPC
- The state of detachment (`attaching`, `attached`, `detaching`, `detached`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command detaches the specified virtual private gateway from the specified VPC.

```
PROMPT> ec2-detach-vpn-gateway vgw-8db04f81 -c vpc-1a2b3c4d
VGWATTACHMENT vpc-1a2b3c4d detaching
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DetachVpnGateway](#)

### Related Commands

- [ec2-attach-vpn-gateway](#) (p. 70)
- [ec2-describe-vpn-gateways](#) (p. 507)

# ec2-disable-vgw-route-propagation

## Description

Disables the specified virtual private gateway (VGW) from propagating routes to the routing tables of the VPC.

The short version of this command is **ec2drp**.

### Tip

If you are using the AWS CLI, see [disable-vgw-route-propagation](#) instead.

## Syntax

```
ec2-disable-vgw-route-propagation --route-table route_table_id --vgw vgw_id
```

## Options

Name	Description
<code>--route-table <i>route_table_id</i></code>	The ID of the routing table. Type: String Default: None Required: Yes
<code>--vgw <i>vgw_id</i></code>	The ID of the virtual private gateway. Type: String Default: None Required: Yes

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key.

Option	Description
	<p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	<p>Reads arguments from standard input. This is useful when piping the output from one command to the input of another.</p> <p>Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code></p>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns true if the operation succeeds or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command disables the virtual private gateway with the ID `vgw-2acfb1` from propagating routes to route table with the ID `rtb-5c6de435`.

```
PROMPT> ec2-disable-vgw-route-propagation --route-table rtb-5c6de435 --vgw
vgw-2acfb1
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DisableVgwRoutePropagation](#)

# ec2-disable-vpc-classic-link

## Description

Disables a VPC for ClassicLink. You cannot disable a VPC for ClassicLink if the VPC has EC2-Classic instances linked to it.

The short version of this command is **ec2disablecl**.

**Tip**

If you are using the AWS CLI, see [disable-vpc-classic-link](#) instead.

## Syntax

**ec2-disable-vpc-classic-link** *vpc\_id*

## Options

Name	Description
<i>vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: vpc-1a2b3c4d

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>

Option	Description
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>



## Output

This command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example disables ClassicLink for `vpc-88888888`.

```
PROMPT> ec2-disable-vpc-classic-link vpc-88888888  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DisableVpcClassicLink](#)

### Related Commands

- [ec2-enable-vpc-classic-link \(p. 547\)](#)
- [ec2-attach-classic-link-vpc \(p. 56\)](#)
- [ec2-detach-classic-link-vpc \(p. 512\)](#)
- [ec2-describe-classic-link-instances \(p. 300\)](#)
- [ec2-describe-vpc-classic-link \(p. 480\)](#)

## ec2-disassociate-address

### Description

Disassociates the specified Elastic IP address from the instance or network interface it's associated with.

An Elastic IP address is for use either in the EC2-Classical platform or in a VPC. For more information, see [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

This is an idempotent action. If you perform the operation more than once, Amazon EC2 doesn't return an error.

The short version of this command is **ec2disaddr**.

**Tip**

If you are using the AWS CLI, see [disassociate-address](#) instead.

## Syntax

**ec2-disassociate-address** { *ip\_address* | **-a** *association\_id* }

## Options

Name	Description
<i>ip_address</i>	[EC2-Classic] The Elastic IP address. Type: String Default: None Required: Conditional Condition: Required for EC2-Classic. Example: 192.0.2.1
<b>-a, --association-id</b> <i>association_id</i>	[EC2-VPC] The association ID. Type: String Default: None Required: Conditional Condition: Required for EC2-VPC. Example: -a eipassoc-fc5ca095

## Common Options

Option	Description
<b>--region</b> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<b>-U, --url</b> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<b>-O, --aws-access-key</b> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<b>-W, --aws-secret-key</b> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.

Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ADDRESS identifier
- [EC2-Classic] The Elastic IP address
- [EC2-VPC] The association ID.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command disassociates the specified Elastic IP address from the instance it's associated with in EC2-Classic.

```
PROMPT> ec2-disassociate-address 192.0.2.1
ADDRESS 192.0.2.1
```

### Example 2

This example command disassociates the Elastic IP address with the association ID `eipassoc-048c746d` from the instance it's associated with in a VPC.

```
PROMPT> ec2-disassociate-address -a eipassoc-048c746d
ADDRESS eipassoc-048c746d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DisassociateAddress](#)

## Related Commands

- [ec2-allocate-address](#) (p. 37)
- [ec2-associate-address](#) (p. 45)
- [ec2-describe-addresses](#) (p. 286)
- [ec2-release-address](#) (p. 636)

# ec2-disassociate-route-table

## Description

Disassociates the specified subnet from its associated route table.

After you perform this action, the subnet no longer uses the routes in the route table. Instead, it uses the routes in the main route table of the VPC.

The short version of this command is **ec2disrtb**.

### Tip

If you are using the AWS CLI, see [disassociate-route-table](#) instead.

## Syntax

```
ec2-disassociate-route-table route_table_association_id
```

## Options

Name	Description
<i>route_table_association_id</i>	The association ID representing the current association between the route table and subnet. Type: String Default: None Required: Yes Example: rtbassoc-61a34608

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- Success status (true or false)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command disassociates the route table with the association ID `rtbassoc-fdad4894` from the subnet it's associated with.

```
PROMPT> ec2-disassociate-route-table rtbassoc-fdad4894
RETURN      true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [DisassociateRouteTable](#)

## Related Commands

- [ec2-associate-route-table](#) (p. 53)
- [ec2-create-route-table](#) (p. 163)
- [ec2-delete-route-table](#) (p. 243)
- [ec2-describe-route-tables](#) (p. 421)
- [ec2-replace-route-table-association](#) (p. 651)

# ec2-enable-vgw-route-propagation

## Description

Enables the specified virtual private gateway (VGW) to propagate routes to the routing tables of the VPC.

The short version of this command is **ec2erp**.

### Tip

If you are using the AWS CLI, see [enable-vgw-route-propagation](#) instead.

## Syntax

```
ec2-enable-vgw-route-propagation --route-table route_table_id --vgw vgw_id
```

## Options

Name	Description
<code>--route-table <i>route_table_id</i></code>	The ID of the routing table. Type: String Default: None Required: Yes
<code>--vgw <i>vgw_id</i></code>	The ID of the virtual private gateway. Type: String Default: None Required: Yes

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

The command returns true if the operation succeeds or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command enables the virtual private gateway with the ID `vgw-2acfb1` to propagate static routes to the route table with the ID `rtb-5c6de435`.

```
PROMPT> ec2-enable-vgw-route-propagation --route-table rtb-5c6de435 --vgw vgw-2acfb1
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [EnableVgwRoutePropagation](#)

# ec2-enable-volume-io

## Description

Enables I/O operations for the specified volume that had its I/O operations disabled because the data on the volume was potentially inconsistent.

The short version of this command is **ec2evio**.

### Tip

If you are using the AWS CLI, see [enable-volume-io](#) instead.

## Syntax

`ec2-enable-volume-io` *volume\_id*

## Options

Name	Description
<i>volume_id</i>	The ID of the volume. Type: String Default: None Required: Yes Example: vol-43a4412a

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key.

Option	Description
	<p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>
<code>--request-timeout timeout</code>	<p>The request timeout, in seconds.</p> <p>Example: <code>--request-timeout 45</code></p>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	<p>Reads arguments from standard input. This is useful when piping the output from one command to the input of another.</p> <p>Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code></p>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on `stderr`.

## Example

### Example

This example command enables I/O operations for the volume with the ID `vol-232323`.

```
PROMPT> ec2-enable-volume-io vol-232323  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [EnableVolumeIO](#)

### Related Commands

- [ec2-describe-volume-status \(p. 465\)](#)

## ec2-enable-vpc-classic-link

### Description

Enables a VPC for ClassicLink. You can then link EC2-Classic instances to your ClassicLink-enabled VPC to allow communication over private IP addresses. You cannot enable your VPC for ClassicLink if any of your VPC's route tables have existing routes for address ranges within the 10.0.0.0/8 IP address range, excluding local routes for VPCs in the 10.0.0.0/16 and 10.1.0.0/16 IP address ranges. For more information, see [ClassicLink](#).

The short version of this command is **ec2enablecl**.

**Tip**

If you are using the AWS CLI, see [enable-vpc-classic-link](#) instead.

### Syntax

**ec2-enable-vpc-classic-link** *vpc\_id*

### Options

Name	Description
<i>vpc_id</i>	The ID of the VPC. Type: String Default: None Required: Yes Example: vpc-1a2b3c4d

### Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.

Option	Description
	Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable.

Option	Description
	Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example enables `vpc-88888888` for ClassicLink.

```
PROMPT> ec2-enable-vpc-classic-link vpc-88888888
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [EnableVpcClassicLink](#)

### Related Commands

- [ec2-disable-vpc-classic-link \(p. 531\)](#)
- [ec2-attach-classic-link-vpc \(p. 56\)](#)
- [ec2-detach-classic-link-vpc \(p. 512\)](#)
- [ec2-describe-classic-link-instances \(p. 300\)](#)
- [ec2-describe-vpc-classic-link \(p. 480\)](#)



## ec2-fingerprint-key

### Description

Computes and displays the fingerprint for a private key produced by Amazon EC2.

This operation is performed entirely on the client-side. Network access is not required.

The short version of this command is **ec2fp**.

### Syntax

**ec2-fingerprint-key** *keyfile*

### Options

Name	Description
<i>keyfile</i>	The path to a file containing an unencrypted PEM-encoded PKCS#8 private key. Type: String Default: None Required: Yes Example: mykey.pem

### Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- A key fingerprint. This is formatted as a hash digest with each octet separated by a colon

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command computes and displays the fingerprint of the private key for the key pair named `my-key-pair`.

```
PROMPT> ec2-fingerprint-key my-key-pair.pem  
1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:2d:7d:b8:ca:9f:f5:f1:6f
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### Related Commands

- [ec2-describe-keypairs \(p. 367\)](#)

## ec2-get-console-output

### Description

Gets the console output for the specified instance.

Instances do not have a physical monitor through which you can view their console output. They also lack physical controls that allow you to power up, reboot, or shut them down. To allow these actions, we provide them through the Amazon EC2 API and command line interface.

Instance console output is buffered and posted shortly after instance boot, reboot, and termination. Amazon EC2 preserves the most recent 64 KB output which will be available for at least one hour after the most recent post.

For Linux instances, the instance console output displays the exact console output that would normally be displayed on a physical monitor attached to a computer. This output is buffered because the instance produces it and then posts it to a store where the instance's owner can retrieve it.

For Windows instances, the instance console output includes output from the EC2Config service.

The short version of this command is **ec2gcons**.

**Tip**

If you are using the AWS CLI, see [get-console-output](#) instead.

## Syntax

`ec2-get-console-output` *instance\_id* [-r]

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Type: String Default: None Required: Yes Example: i-10a64379
-r, --raw-console-output	Returns raw output without escapes to facilitate reading. Type: String Default: Disabled Required: No Example: -r

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option. Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the EC2_URL environment variable, or https://ec2.amazonaws.com if EC2_URL isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the AWS_ACCESS_KEY environment variable. If AWS_ACCESS_KEY isn't set, you must specify this option. Example: -O AKIAIOSFODNN7EXAMPLE
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key.

Option	Description
	Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2.

Option	Description
	Default: The value of the EC2_PRIVATE_KEY environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the instance
- A timestamp indicating the time of the last update
- The instance console output. By default the ^ESC character is escaped and duplicate new-lines are removed to facilitate reading

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command retrieves the console output for the specified instance.

```
PROMPT> ec2-get-console-output i-10a64379
```

The following is example output for a Linux instance.

```
i-10a64379
2015-01-23T09:20:29+0000
[ 0.000000] Initializing cgroup subsys cpuset
[ 0.000000] Initializing cgroup subsys cpu
[ 0.000000] Initializing cgroup subsys cpuacct
[ 0.000000] Linux version 3.14.20-20.44.amzn1.x86_64 (mockbuild@gobi-
build-60001)
(gcc version 4.8.2 20140120 (Red Hat 4.8.2-16) (GCC) ) #1 SMP Mon Oct 6
22:52:46 UTC 2014
[ 0.000000] Command line: root=LABEL=/ console=ttyS0
[ 0.000000] e820: BIOS-provided physical RAM map:
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000009dfff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000009e000-0x0000000000009ffff]
reserved
[ 0.000000] BIOS-e820: [mem 0x000000000000e0000-0x000000000000fffff]
reserved
[ 0.000000] BIOS-e820: [mem 0x00000000000100000-0x000000000003ffffff] usable
[ 0.000000] BIOS-e820: [mem 0x00000000000fc000000-0x00000000000ffffff]
reserved
```

```
[ 0.000000] NX (Execute Disable) protection: active
...
Amazon Linux AMI release 2014.09
Kernel 3.14.20-20.44.amzn1.x86_64 on an x86_64

ip-10-0-2-119 login:
```

The following is example output for a Windows instance.

```
i-10a64379
2015-01-21T21:21:37+0000
2015/01/21 21:21:25Z: Windows sysprep configuration complete.
2015/01/21 21:21:26Z: AMI Origin Version: 2014.12.10
2015/01/21 21:21:26Z: AMI Origin Name: Windows_Server-2012-R2_RTM-
English-64Bit-Base
2015/01/21 21:21:26Z: OsVersion: 6.3
2015/01/21 21:21:26Z: OsServicePack: NotFound
2015/01/21 21:21:26Z: OsProductName: Windows Server 2012 R2 Standard
2015/01/21 21:21:26Z: OsBuildLabEx:
 9600.17476.amd64fre.winblue_r5.141029-1500
2015/01/21 21:21:26Z: Language: en-US
2015/01/21 21:21:26Z: EC2 Agent: Ec2Config service v2.2.12.301
2015/01/21 21:21:26Z: EC2 Agent: Ec2Config service fileversion v2.2.12.301
2015/01/21 21:21:29Z: Driver: AWS PV Network Device v7.2.4.1
2015/01/21 21:21:29Z: Driver: AWS PV Storage Host Adapter v7.2.4.1
2015/01/21 21:21:30Z: Message: Waiting for meta-data accessibility...
2015/01/21 21:21:30Z: Message: Meta-data is now available.
...
2015/01/21 21:21:33Z: Message: Windows is Ready to use
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [GetConsoleOutput](#)

### Related Commands

- [ec2-run-instances \(p. 693\)](#)

# ec2-get-password

## Description

Retrieves and decrypts the administrator password for Windows instances.

The Windows password is generated at boot if the `EC2Config` service plugin, `Ec2SetPassword`, is enabled. This usually only happens the first time an AMI is launched, and then `Ec2SetPassword` is automatically disabled. The password is not generated for rebundled AMIs unless `Ec2SetPassword` is enabled before bundling.

The password is encrypted using the key pair that you specified when you launched the instance. You must provide the corresponding key pair file.

Password generation and encryption takes a few moments. Please wait up to 15 minutes after launching an instance before trying to retrieve the generated password.

The short version of this command is **ec2gpss**.

### Tip

If you are using the AWS CLI, see [get-password-data](#) instead.

## Syntax

```
ec2-get-password instance_id -k key_file
```

## Options

Name	Description
<i>instance_id</i>	The ID of a Windows instance. Type: String Default: None Required: Yes Example: i-9b76d0f3
<code>-k, --priv-launch-key</code> <i>key_file</i>	The file that contains the private key used to launch the instance. Type: String Default: None Required: Yes Example: -k windows-keypair.pem

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The Windows administrator password

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command returns the administrator password for the specified Windows instance.

```
PROMPT> ec2-get-password i-2574e22a -k windows-keypair.pem
q96A40B9w
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [GetPasswordData](#)

## Related Commands

- [ec2-run-instances](#) (p. 693)
- [ec2-describe-instances](#) (p. 349)

# ec2-import-instance

## Description

Creates an import instance task using metadata from the specified disk image, and imports the image to Amazon EC2. For more information, see [Importing a Virtual Machine Using the Amazon EC2 CLI](#) (p. 735).

If the upload task doesn't complete, use [ec2-resume-import](#) (p. 684) to resume the import from where it was interrupted.

### Limits

- The `ec2-import-instance` command does not support Amazon Simple Storage Service (Amazon S3) authentication using AWS Security Token Service (AWS STS) credentials (`-t --security-token` option).
- You cannot use `ec2-import-instance` to import Microsoft Windows instances that use the bring your own license (BYOL) model.

The short version of this command is **ec2iin**.

## Syntax

```
ec2-import-instance -t instance_type [-g group] -f file_format -
a architecture [-p platform_name] -b s3_bucket_name [-o owner] -w
secret_key [--prefix prefix] [--manifest-url url] [-s volume_size] [-z
availability_zone] [-d description] [--user-data user_data] [--user-data-file
disk_image_filename] [--subnet subnet_id] [--private-ip-address ip_address]
[--monitor] [--instance-initiated-shutdown-behavior behavior] [--x days] [--
ignore-region-affinity] [--dry-run] [--no-upload] [--dont-verify-format]
```

## Options

Name	Description
<code>-t, --instance-type</code> <i>instance_type</i>	The type of instance to be launched. For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: String Default: <code>m1.small</code> Required: Yes Example: <code>-t m1.small</code>

Name	Description
	<p><b>Note</b> The <b>-a</b> option is only honored if the <b>-t</b> option is passed. If the <b>-t</b> option is not passed, then <b>-a</b> is treated as <b>i386</b>. If the <b>-t</b> option is not passed, the instance type defaults to <code>m1.small</code>.</p>
<p><code>-g, --group <i>group</i></code></p>	<p>The security group (or groups if specified multiple times) within which the instances should be run. Determines the ingress firewall rules that are applied to the launched instances. Defaults to your default security group if the <code>-g</code> option is not supplied. This is not supported for VMs imported into a VPC, which are assigned the default security group. After a VM is imported into a VPC, you can specify another security group using the AWS Management Console.</p> <p>Type: String Default: Your default security group Required: No Example: <code>-g myGroup</code></p>
<p><code>-f, --format <i>file_format</i></code></p>	<p>The file format of the disk image.</p> <p>Type: String Valid values: <code>VMDK</code>   <code>RAW</code>   <code>VHD</code> Default: None Required: Yes Example: <code>-f VMDK</code></p>
<p><code>-a, --architecture <i>architecture</i></code></p>	<p>The architecture of the image. Using this option ensures that your image is imported as the expected instance type.</p> <p>Type: String Valid values: <code>i386</code>   <code>x86_64</code> Default: <code>i386</code> Required: Yes Condition: Required if instance type is specified; otherwise defaults to <code>i386</code>.</p> <p><b>Note</b> The <b>-a</b> option is only honored if the <b>-t</b> option is passed. If the <b>-t</b> option is not passed, then <b>-a</b> is treated as <b>i386</b>. If the <b>-t</b> option is not passed, the instance type defaults to <code>m1.small</code>.</p> <p>Example: <code>-a i386</code></p>
<p><code>-p, --platform <i>platform_name</i></code></p>	<p>The operating system of the instance.</p> <p>Type: String Default: None Valid value: <code>Windows</code>   <code>Linux</code> Required: No</p>

Name	Description
<p><code>-b, --bucket s3_bucket_name</code></p>	<p>The Amazon S3 destination bucket for the manifest. Type: String Default: None Required: Conditional Condition: The <code>--manifest-url</code> parameter is not specified. Example: myawsbucket</p>
<p><code>-o, --owner-akid access_key_id</code></p>	<p>The access key ID of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: Yes Example: AKIAIOSFODNN7EXAMPLE</p>
<p><code>-w, --owner-sak secret_access_key</code></p>	<p>The secret access key of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: Yes Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</p>
<p><code>--prefix prefix</code></p>	<p>The prefix for the manifest file and disk image file parts within the Amazon S3 bucket. Type: String Default: None Required: No Example: <code>--prefix MyDiskParts</code></p>
<p><code>--manifest-url url</code></p>	<p>The URL for an existing import manifest file already uploaded to Amazon S3. For information about the import manifest, see <a href="#">VM Import Manifest</a>. Type: String Default: None. This option can't be specified if the <code>--bucket</code> option is present. Required: No Example: <code>my-ami.manifest.xml</code></p>
<p><code>-s, --volume-size volume_size</code></p>	<p>The size of the Amazon EBS volume, in GiB, that will hold the converted image. If not specified, Amazon EC2 calculates the value using the disk image file. Type: String Default: None Required: No Example: <code>-s 30</code></p>

Name	Description
<code>-z, --availability-zone <i>availability_zone</i></code>	<p>The Availability Zone for the converted VM. Type: String Valid values: Use <a href="#">ec2-describe-availability-zones (p. 291)</a> to get a list of values Default: None Required: No Example: <code>-z us-east-1a</code></p>
<code>-d, --description <i>description</i></code>	<p>An optional, free-form comment returned verbatim during subsequent calls to <a href="#">ec2-describe-conversion-tasks (p. 304)</a>. Type: String Default: None Constraint: Maximum length of 255 characters Required: No Example: <code>-d Test of ec2-import-instance</code></p>
<code>--user-data <i>user_data</i></code>	<p>User data to be made available to the imported instance. Type: String Default: None Required: No Example: <code>--user-data This is user data</code></p>
<code>--user-data-file <i>disk_image_filename</i></code>	<p>The file containing user data made available to the imported instance. Type: String Default: None Required: No Example: <code>--user-data-file my_data_file</code></p>
<code>--subnet <i>subnet_id</i></code>	<p>[EC2-VPC] The ID of the subnet into which you're launching the instance. Type: String Default: None Required: No Example: <code>--subnet subnet-f3e6ab83</code></p>
<code>--private-ip-address <i>ip_address</i></code>	<p>[EC2-VPC] The specific IP address within <i>subnet</i> to use for the instance. Type: String Default: None Required: No Example: <code>--private-ip-address 10.0.0.3</code></p>
<code>--monitor</code>	<p>Enables monitoring of the specified instances. Type: String Default: None Required: No Example: <code>--monitor</code></p>

Name	Description
<code>--instance-initiated-shutdown-behavior <i>behavior</i></code>	<p>Indicates whether an instance stops or terminates when you initiate shutdown from the instance (using the operating system command for system shutdown).</p> <p>Type: String</p> <p>Valid values: <code>stop</code>   <code>terminate</code></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--instance-initiated-shutdown-behavior stop</code></p>
<code>-x, --expires <i>days</i></code>	<p>The validity period for the signed Amazon S3 URLs that allow Amazon EC2 to access the manifest.</p> <p>Type: String</p> <p>Default: 30 days</p> <p>Required: No</p> <p>Example: <code>-x 10</code></p>
<code>--ignore-region-affinity</code>	<p>Ignores the verification check to determine whether the bucket's region matches the region where the conversion task is created.</p> <p>Type: None</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--ignore-region-affinity</code></p>
<code>--dry-run</code>	<p>Validates that the disk image matches a known type, without creating an import task.</p> <p>Type: None</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--dry-run</code></p>
<code>--dont-verify-format</code>	<p>Skips verifying the file format. We don't recommend this option because it can result in a failed conversion.</p> <p>Type: None</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--dont-verify-format</code></p>
<code>--no-upload</code>	<p>Creates an import task, without uploading a disk image to Amazon S3. To complete the import task and upload the disk image, use <a href="#">ec2-resume-import (p. 684)</a>.</p> <p>Type: None</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--no-upload</code></p>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .



Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the following information:

- Task ID, which you will use in other commands
- General information about the disk image, such as the size and format
- General information about the import operation, such as the status, bytes received, and expiration deadline

Amazon EC2 command line tools display errors on `stderr`.

## Example

### Example

This example command creates an import instance task that migrates a Windows Server 2008 SP2 (32-bit) VM into the `us-east-1` region.

```
PROMPT> ec2-import-instance -t m1.xlarge ./WinSvr8-disk1.vmdk -f VMDK  
-o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY -b  
myawsbucket
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ImportInstance](#)

### Related Commands

- [ec2-cancel-conversion-task \(p. 87\)](#)
- [ec2-delete-disk-image \(p. 214\)](#)
- [ec2-describe-conversion-tasks \(p. 304\)](#)
- [ec2-import-volume \(p. 571\)](#)
- [ec2-resume-import \(p. 684\)](#)

## ec2-import-keypair

### Description

Imports the public key from an RSA key pair that you created with a third-party tool. Compare this with `ec2-create-keypair`, in which AWS creates the key pair and gives the keys to you (AWS keeps a copy of the public key). With `ec2-import-keypair`, you create the key pair and give AWS just the public key. The private key is never transferred between you and AWS.

You can easily create an RSA key pair using the `ssh-keygen` command line tool (provided with the standard OpenSSH installation). Standard library support for RSA key pair creation is also available in Java, Ruby, Python, and many other programming languages.

Supported formats:

- OpenSSH public key format (the format in `~/.ssh/authorized_keys`)
- Base64 encoded DER format
- SSH public key file format as specified in [RFC4716](#)

DSA keys are not supported. Make sure your key generator is set up to create RSA keys.

Supported lengths: 1024, 2048, and 4096.

Note that you can have up to five thousand key pairs per region.

The short version of this command is **ec2ikey**.

**Tip**

If you are using the AWS CLI, see [import-key-pair](#) instead.

## Syntax

```
ec2-import-keypair key_name --public-key-file key_file
```

## Options

Name	Description
<i>key_name</i>	A unique name for the key pair. Type: String Default: None Required: Yes Example: my-key-pair
<code>-f, --public-key-file</code> <i>key_file</i>	The path and name of the file containing the public key. Type: String Default: None Required: Yes Example: -f C:\keys\my-key-pair.pub

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:

- The KEYPAIR identifier
- The name of the key pair
- The MD5 public key fingerprint as specified in section 4 of [RFC 4716](#)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command imports the public key from the file `C:\keys\my-key-pair.pub`.

```
PROMPT> ec2-import-keypair my-key-pair --public-key-file C:\keys\my-key-  
pair.pub  
KEYPAIR my-key-pair  
1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:2d:7d:b8:ca:9f:f5:f1:6f
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ImportKeyPair](#)

### Related Commands

- [ec2-create-keypair](#) (p. 136)
- [ec2-delete-keypair](#) (p. 224)
- [ec2-describe-keypairs](#) (p. 367)

# ec2-import-volume

## Description

Creates an import volume task using metadata from the specified disk image, and imports the image to Amazon EC2. For more information, see [Limitations \(p. 736\)](#) and [Import Your Volumes into Amazon EBS \(p. 747\)](#).

If the upload task doesn't complete, use [ec2-resume-import \(p. 684\)](#) to resume the import from where it was interrupted.

The short version of this command is **ec2ivol**.

## Syntax

```
ec2-import-volume disk_image -f file_format [-s volume_size] -z
availability_zone [-b s3_bucket_name] [-o owner] -w secret_key [--prefix
prefix] [--manifest-url url] [-d description] [--x days] [--ignore-region-
affinity] [--dry-run] [--no-upload] [--dont-verify-format]
```

## Options

Name	Description
<i>disk_image</i>	The local file name of the disk image. Type: String Default: None Required: Yes Example: WinSvr8-64-disk1.vmdk
-f, --format <i>file_format</i>	The file format of the disk image. Type: String Valid values: vmdk   raw   vhd Default: None Required: Yes Example: -f vmdk
-s, --volume-size <i>volume_size</i>	The size, in GiB, of an Amazon EBS volume that will hold the converted image. If not specified, Amazon EC2 calculates the value using the disk image file. Type: String Default: None Required: No Example: -s 30
-z, --availability-zone <i>zone</i>	The Availability Zone for the converted VM. If you specify an Availability Zone, the Amazon S3 bucket specified with the --bucket option must be in the same region as the Availability Zone. Type: String Valid values: Use <a href="#">ec2-describe-availability-zones (p. 291)</a> to get a list of values. Required: Yes Example: -z us-east-1a

Name	Description
<p><code>-b, --bucket <i>bucket</i></code></p>	<p>The Amazon S3 destination bucket for the manifest. Type: String Default: None Condition: Required when the <code>--manifest-url</code> parameter is not specified. Required: Yes Example: <code>-b myawsbucket</code></p>
<p><code>-o, --owner-akid <i>access_key_id</i></code></p>	<p>The access key ID of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: No Example: <code>AKIAIOSFODNN7EXAMPLE</code></p>
<p><code>-w, --owner-sak <i>secret_access_key</i></code></p>	<p>The secret access key of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: Yes Example: <code>wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<p><code>--prefix <i>prefix</i></code></p>	<p>The prefix for the manifest file and disk image file parts within the Amazon S3 bucket. Type: String Default: None Required: No Example: <code>--prefix MyDiskParts</code></p>
<p><code>--manifest-url <i>url</i></code></p>	<p>The URL for an existing import manifest file already uploaded to Amazon S3. For information about the import manifest, see <a href="#">VM Import Manifest</a>. Type: String Default: None Condition: This option can't be specified if the <code>--bucket</code> option is present. Required: No Example: <code>my-ami.manifest.xml</code></p>
<p><code>-d, --description <i>description</i></code></p>	<p>An optional, free-form comment returned verbatim during subsequent calls to <a href="#">ec2-describe-conversion-tasks</a> (p. 304). Type: String Default: None Constraint: Maximum length of 255 characters Required: No Example: <code>-d Test of ec2-import-instance</code></p>

Name	Description
<code>-x, --expires <i>days</i></code>	The validity period for the signed Amazon S3 URLs that allow Amazon EC2 to access the manifest. Type: String Default: 30 days Required: No Example: <code>-x 10</code>
<code>--ignore-region-affinity</code>	Ignores the verification check to determine whether the bucket's region matches the region where the conversion-task is created. Type: None Default: None Required: No Example: <code>--ignore-region-affinity</code>
<code>--dry-run</code>	Does not create an import task, only validates that the disk image matches a known type. Type: None Default: None Required: No Example: <code>--dry-run</code>
<code>--no-upload</code>	Does not upload a disk image to Amazon S3, only creates an import task. To complete the import task and upload the disk image, use <a href="#">ec2-resume-import</a> (p. 684). Type: None Default: None Required: No Example: <code>--no-upload</code>
<code>--dont-verify-format</code>	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Required: No Example: <code>--dont-verify-format</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.



Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns the following information:

- The percentage of the import completed
- The checksum value
- Information about the volume, such as the size and format

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command creates an import volume task that migrates a Windows Server 2008 (32-bit) volume into the us-east-1 region.

```
PROMPT> ec2-import-volume 123M.vmdk -f VMDK -z us-east-1a -s 9 -b myawsbucket
-o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [ImportVolume](#)

## Related Commands

- [ec2-cancel-conversion-task](#) (p. 87)
- [ec2-delete-disk-image](#) (p. 214)
- [ec2-describe-conversion-tasks](#) (p. 304)
- [ec2-import-instance](#) (p. 560)
- [ec2-resume-import](#) (p. 684)

# ec2-migrate-image

## Description

Copies a bundled AMI from one region to another.

### Important

This tool does not work with AMIs backed by Amazon EBS. Use [ec2-copy-image](#) (p. 104) instead.

The short version of this command is **ec2mim**.

## Syntax

```
ec2-migrate-image --private-key private_key --cert cert -U url --owner-akid access_key_id --owner-sak secret_access_key --bucket source_s3_bucket --destination-bucket destination_s3_bucket --manifest manifest_path --acl acl --location {US | EU} --ec2cert ec2_cert_path [--kernel kernel-id] [--ramdisk ramdisk_id] [--no-mapping] --region mapping_region_name
```

## Options

Name	Description
<code>-K, --private-key <i>private_key</i></code>	The path to your PEM-encoded RSA key file. Type: String Default: Uses the EC2_PRIVATE_KEY environment variable Required: No
<code>-C, --cert <i>cert</i></code>	The user's PEM-encoded RSA public key certificate file. Type: String Default: Uses the EC2_CERT environment variable Required: No Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
<code>-U, --url <i>url</i></code>	The URL to use as the web service URL. Type: String Default: https://ec2.amazonaws.com

Name	Description
	<p>Required: No Example: -U https://ec2.amazonaws.com</p>
<p>-o, --owner-akid <i>access_key_id</i></p>	<p>The access key ID of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: Yes Example: -o AKIAIOSFODNN7EXAMPLE</p>
<p>-w, --owner-sak <i>secret_access_key</i></p>	<p>The secret access key of the bucket owner. Before you specify a value for this option, review and follow the guidance in <a href="#">Best Practices for Managing AWS Access Keys</a>. Type: String Default: None Required: Yes Example: -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</p>
<p>--bucket <i>source_s3_bucket</i></p>	<p>The source Amazon S3 bucket where the AMI is located, followed by an optional '/'-delimited path prefix. Type: String Default: None Required: Yes Example: --bucket myawsbucket</p>
<p>--destination-bucket <i>destination_s3_bucket</i></p>	<p>The destination Amazon S3 bucket, followed by an optional '/'-delimited path prefix. If the destination bucket does not exist, it is created. Type: String Default: None Required: Yes Example: --destination-bucket myotherawsbucket</p>
<p>--manifest <i>manifest</i></p>	<p>The location of the Amazon S3 source manifest. Type: String Default: None Required: Yes Example: --manifest my-ami.manifest.xml</p>
<p>--location {US   EU}</p>	<p>The location of the destination Amazon S3 bucket. Type: String Valid values: US   EU Default: US Required: No Example: --location EU</p>

Name	Description
<code>--acl acl</code>	<p>The access control list policy of the bundled image.</p> <p>Type: String</p> <p>Valid values: <code>public-read</code>   <code>aws-exec-read</code></p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: <code>--acl public-read</code></p>
<code>--kernel</code>	<p>The ID of the kernel to select.</p> <p><b>Important</b></p> <p>We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--kernel aki-ba3adfd3</code></p>
<code>--ramdisk</code>	<p>The ID of the RAM disk to select.</p> <p><b>Important</b></p> <p>We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--ramdisk ari-badbad00</code></p>
<code>--no-mapping</code>	<p>Disables automatic mapping of kernels and RAM disks.</p> <p>Type: String</p> <p>Default: Mapping is enabled.</p> <p>Required: No</p> <p>Example: <code>--no-mapping</code></p>
<code>--region region</code>	<p>The region to look up in the mapping file.</p> <p>Type: String</p> <p>Default: Amazon EC2 attempts to determine the region from the location of the Amazon S3 bucket.</p> <p>Required: No</p> <p>Example: <code>--region eu-west-1</code></p>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-t AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. <b>Example:</b> <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Output

This command returns a table that contains the following information:

- Status messages describing the stages and status of the migration

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command copies the AMI specified in the `my-ami.manifest.xml` manifest from the US to the EU.

```
PROMPT> ec2-migrate-image --cert cert-THUMBPRINT.pem --private-key pk-
THUMBPRINT.pem --owner-akid
AKIAIOSFODNN7EXAMPLE --owner-sak wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY --
bucket myawsbucket
--destination-bucket my-eu-bucket --manifest my-ami.manifest.xml --acl aws-
exec-read --location EU
Copying 'my-ami.part.00'...
Copying 'my-ami.part.01'...
Copying 'my-ami.part.02'...
Copying 'my-ami.part.03'...
Copying 'my-ami.part.04'...
Copying 'my-ami.part.05'...
Copying 'my-ami.part.06'...
Copying 'my-ami.part.07'...
Copying 'my-ami.part.08'...
Copying 'my-ami.part.09'...
Copying 'my-ami.part.10'...
Your new bundle is in S3 at the following location:
my-eu-bucket/my-ami.manifest.xml
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)

- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## Related Action

- There is no underlying API action for this command.

## Related Commands

- [ec2-register \(p. 626\)](#)
- [ec2-run-instances \(p. 693\)](#)

# ec2-modify-image-attribute

## Description

Modifies the specified attribute of the specified AMI. You can specify only one attribute at a time.

### Note

You can't modify AWS Marketplace product codes. Images with AWS Marketplace product codes can't be made public.

The short version of this command is **ec2mimatt**.

### Tip

If you are using the AWS CLI, see [modify-image-attribute](#) instead.

## Syntax

```
ec2-modify-image-attribute ami_id {-l (-a entity | -r entity) | --product-code code}
```

## Options

Name	Description
<i>ami_id</i>	The ID of the AMI. Type: String Default: None Required: Yes Example: ami-2bb65342
-p, --product-code <i>code</i>	The product code to add to the specified instance store-backed AMI. After you add a product code to an AMI, it can't be removed. Type: String Default: None Required: No Example: -p D662E989
-l, --launch-permission	Used with the --add or --remove flags to grant or revoke launch permissions. Type: String



Name	Description
	<p>Default: None</p> <p>Required: Yes</p> <p>Example: --launch-permission</p>
<code>-a, --add <i>entity</i></code>	<p>Adds a launch permission for the specified AWS account or for all accounts.</p> <p>Type: String</p> <p>Valid values: <i>AWS account ID</i>   <code>all</code></p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: --launch-permission --add all</p>
<code>-r, --remove <i>entity</i></code>	<p>Removes a launch permission for the specified AWS account or for all users.</p> <p>Type: String</p> <p>Valid values: <i>AWS account ID</i>   <code>all</code></p> <p>Default: None</p> <p>Required: Yes</p> <p>Example: --launch-permission --remove all</p>

## Common Options

Option	Description
<code>--region <i>region</i></code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url <i>url</i></code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code></p>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the AMI on which attributes are being modified
- The action performed on the attribute
- The attribute or attribute list item value type
- The attribute or attribute list item value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command makes the specified AMI public (for example, so that any AWS account can use it).

```
PROMPT> ec2-modify-image-attribute ami-1a2b3c4d -l -a all  
launchPermission ami-1a2b3c4d ADD group all
```

### Example 2

This example command makes the specified AMI private (for example, so that only you as the owner can use it).

```
PROMPT> ec2-modify-image-attribute ami-1a2b3c4d -l -r all  
launchPermission ami-1a2b3c4d REMOVE group all
```

### Example 3

This example command grants launch permission to the AWS account with the ID 444455556666.

```
PROMPT> ec2-modify-image-attribute ami-2bb65342 -l -a 444455556666  
launchPermission ami-2bb65342 ADD userId 444455556666
```

### Example 4

This example command removes launch permission from the AWS account with the ID 444455556666.

```
PROMPT> ec2-modify-image-attribute ami-1a2b3c4d -l -r 444455556666  
launchPermission ami-1a2b3c4d REMOVE userId 444455556666
```

## Example 5

This example command adds the 774F4FF8 product code to the AMI with the ID `ami-1a2b3c4d`.

```
PROMPT> ec2-modify-image-attribute ami-1a2b3c4d -p 774F4FF8  
productcodes ami-1a2b3c4d productCode 774F4FF8
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyImageAttribute](#)

### Related Commands

- [ec2-reset-image-attribute \(p. 671\)](#)
- [ec2-describe-image-attribute \(p. 325\)](#)

# ec2-modify-instance-attribute

## Description

Modifies the specified attribute of the specified instance. You can specify only one attribute at a time.

### Note

To modify some attributes, the instance must be stopped. For more information, see [Modifying a Stopped Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2minatt`.

### Tip

If you are using the AWS CLI, see [modify-instance-attribute](#) instead.

## Syntax

```
ec2-modify-instance-attribute instance_id { --block-device-mapping mapping  
| --disable-api-termination | --ebs-optimized Boolean | --group-id group_id
```

```
[...] | --instance-initiated-shutdown-behavior behavior | --instance-type type | --kernel kernel_id | --ramdisk ramdisk_id | --source-dest-check Boolean | --sriov sriov | --user-data user_data }
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Type: String Default: None Required: Yes Example: i-43a4412a
<code>-b, --block-device-mapping <i>mapping Boolean</i></code>	Modifies the <code>DeleteOnTermination</code> attribute for volumes that are currently attached. The volume must be owned by the caller. If no value is specified for <code>DeleteOnTermination</code> , the volume is deleted when the instance is terminated.  To add instance store volumes to an Amazon EBS-backed instance, you must add them when you launch the instance. For more information, see <a href="#">Updating the Block Device Mapping when Launching an Instance</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> . Type: BlockDeviceMapping Required: No Examples: <code>-b "/dev/sdb=:false"</code>
<code>--disable-api-termination <i>Boolean</i></code>	If this option is specified, you can't terminate the instance using the Amazon EC2 console, CLI, and API; otherwise, you can. Type: Boolean Default: <code>false</code> Required: No Example: <code>--disable-api-termination true</code>
<code>--ebs-optimized <i>Boolean</i></code>	Indicates whether the instance is optimized for Amazon EBS I/O. This optimization provides dedicated throughput to Amazon EBS and an optimized configuration stack to provide optimal Amazon EBS I/O performance. This option isn't available on all instance types. Additional usage charge apply when using this option. Type: Boolean Default: <code>false</code> Required: No Example: <code>--ebs-optimized true</code>
<code>-g, --group-id <i>group_id</i></code>	[EC2-VPC] Modify the security groups associated with an instance. The set of security groups that you specify replaces the current set. You must specify at least one group, even if it's just the default security group for the VPC. You must specify the security group by ID and not by name. Type: String Default: None

Name	Description
	<p>Required: No Example: <code>-g sg-1a1a1a1a -g sg-9b9b9b9b</code></p>
<p><code>--instance-initiated-shutdown-behavior <i>behavior</i></code></p>	<p>Indicates whether an instance stops or terminates when you initiate shutdown from the instance (using the operating system command for system shutdown). Type: String Valid values: <code>stop</code>   <code>terminate</code> Default: <code>stop</code> Required: No Example: <code>--instance-initiated-shutdown-behavior stop</code></p>
<p><code>-t, --instance-type <i>type</i></code></p>	<p>The type of the instance. For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>. An <code>InvalidInstanceAttributeValue</code> error is returned if the instance type is not valid. Type: String Default: <code>m1.small</code> Required: No Example: <code>-t m1.large</code></p>
<p><code>--kernel <i>kernel_id</i></code></p>	<p>The ID of the kernel.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--kernel aki-1a2b3c4d</code></p>
<p><code>--ramdisk <i>ramdisk_id</i></code></p>	<p>The ID of the RAM disk.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--ramdisk ari-1a2b3c4d</code></p>

Name	Description
<code>--source-dest-check</code> <i>Boolean</i>	<p>Indicates whether source/destination checking is enabled. A value of <code>true</code> means checking is enabled, and <code>false</code> means checking is disabled. This value must be <code>false</code> for a NAT instance to perform NAT. For more information, see <a href="#">NAT Instances</a> in the <i>Amazon VPC User Guide</i>.</p> <p>Type: Boolean Default: <code>true</code> Required: No Example: <code>--source-dest-check false</code></p>
<code>--sriov</code> <i>sriov</i>	<p>Set to <code>simple</code> to enable enhanced networking for the instance and any AMIs that you create from the instance. There is no way to disable enhanced networking at this time. For more information, see <a href="#">Enabling Enhanced Networking on Linux Instances</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> or <a href="#">Enabling Enhanced Networking on Windows Instances</a> in the <i>Amazon EC2 User Guide for Windows Instances</i>.</p> <p><b>Warning</b> This option is supported only for HVM instances. Specifying this option with a PV instance can make it unreachable.</p> <p>Type: String Valid values: <code>simple</code> Default: None Required: No Example: <code>--sriov simple</code></p>
<code>--user-data</code> <i>user_data</i>	<p>The base64-encoded MIME user data.</p> <p>Type: String Default: None Required: No Example: <code>--user-data "My user data"</code></p>

## Common Options

Option	Description
<code>--region</code> <i>region</i>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url</code> <i>url</i>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and



X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the instance on which attributes are being modified
- The new attribute value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command changes the instance type of the specified instance. The instance must be in the `stopped` state.

```
PROMPT> ec2-modify-instance-attribute i-10a64379 --instance-type m1.small
instanceType i-10a64379 m1.small
```

### Example 2

This example command changes the `InstanceInitiatedShutdownBehavior` attribute of the specified instance.

```
PROMPT> ec2-modify-instance-attribute i-10a64379 --instance-initiated-
shutdown-behavior terminate
instanceInitiatedShutdownBehavior i-10a64379 terminate
```

### Example 3

This example command changes the `DisableApiTermination` attribute of the specified instance.

```
PROMPT> ec2-modify-instance-attribute i-10a64379 --disable-api-termination
true
disableApiTermination i-10a64379 true
```

## Example 4

This example command changes the `DeleteOnTermination` attribute for the root volume of the specified Amazon EBS-backed instance. By default, this attribute is `true` for the root volume.

```
PROMPT> ec2-modify-instance-attribute i-10a64379 --block-device-mapping "/
dev/sda1=:false"
BLOCKDEVICE      /dev/sda1                false
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyInstanceAttribute](#)

### Related Commands

- [ec2-describe-instance-attribute \(p. 338\)](#)
- [ec2-reset-instance-attribute \(p. 674\)](#)

# ec2-modify-network-interface-attribute

## Description

Modifies the specified network interface attribute. You can specify only one attribute at a time.

The short version of this command is `ec2mnicatt`.

### Tip

If you are using the AWS CLI, see [modify-network-interface-attribute](#) instead.

## Syntax

```
ec2-modify-network-interface-attribute interface_id [ -d, --description
description | -a, --attachment attachment_id | --delete-on-termination
Boolean | --source-dest-check Boolean | --group-id group_id]
```

## Options

Name	Description
<code>interface_id</code>	The ID of the network interface. Type: String Default: None Required: Yes Example: <code>eni-b35da6da</code>
<code>-d, --description description</code>	Changes the description of the network interface. Type: String Default: None Required: No Example: <code>-d "My Second ENI"</code>
<code>-a, --attachment attachment_id</code>	Changes properties of the attachment. Type: String Default: None Constraints: Must be used in conjunction with <code>--delete-on-termination</code> . Required: No Example: <code>-a eni-attach-09703260</code>
<code>--delete-on-termination Boolean</code>	Sets whether the network interface shall be deleted when the network interface is detached. Type: String Default: None Constraints: Must be used in conjunction with <code>--attachment</code> . Required: No Example: <code>--delete-on-termination false</code>
<code>--source-dest-check Boolean</code>	Indicates whether to enable source/destination checking. The value must be <code>false</code> for a NAT instance to perform NAT. Type: String Valid values: <code>true   false</code> Default: None Required: No Example: <code>--source-dest-check false</code>
<code>--group-id group_id</code>	Replaces the security groups for this network interface. You must specify at least one security group, even if it's just the default security group in the VPC. You must specify the ID of the security group, not its name. Type: String Default: None Required: No Example: <code>--group-id sg-b90619d5 --group-id sg-a92639c9</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The NETWORKINTERFACE identifier
- The ID of the network interface
- The name of the attribute
- The attribute type identifier
- The new attribute value

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command adds a description to the network interface.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da -d "This is an ENI"  
NETWORKINTERFACE    eni-b35da6da    description
```

## Example 2

This example command turns off source/destination checking.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --source-dest-check false  
NETWORKINTERFACE    eni-b35da6da    sourceDestCheck  
SOURCEDESTCHECK     false
```

## Example 3

This example command changes the security group for the specified network interface.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --group-id sg-8ea1bce2  
NETWORKINTERFACE    eni-b35da6da    group  
GROUPID             sg-8ea1bce2
```

## Example 4

This example command retains the network interface when it is detached from an instance.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --delete-on-termination false -a eni-attach-083fda61  
NETWORKINTERFACE    eni-b35da6da    attachment
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyNetworkInterfaceAttribute](#)

### Related Commands

- [ec2-attach-network-interface \(p. 63\)](#)

- [ec2-create-network-interface](#) (p. 147)
- [ec2-delete-network-interface](#) (p. 234)
- [ec2-describe-network-interface-attribute](#) (p. 376)
- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-detach-network-interface](#) (p. 518)
- [ec2-reset-network-interface-attribute](#) (p. 677)

## ec2-modify-reserved-instances

### Description

Modifies the Availability Zone, instance count, network platform (EC2-Classic or EC2-VPC), or instance type of your Reserved Instances. The Reserved Instances to be modified must have identical configurations, except for Availability Zone, network platform, and instance type.

For more information, see [Modifying Reserved Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2mri**.

#### Tip

If you are using the AWS CLI, see [modify-reserved-instances](#) instead.

### Syntax

```
ec2-modify-reserved-instances reserved-instances-id [reserved-instances-id [...]] [--client-token token] -c target-configuration [-c target-configuration [...]]
```

### Options

Name	Description
<i>reserved-instances-id</i>	The ID of the Reserved Instances to modify. IDs must refer to Reserved Instances that are identical, except for Availability Zone, instance type, and network platform. Type: String Default: None Required: Yes Example: 9d5cb137-8aba-4639-a0d5-d4d10example
--client-token <i>token</i>	The client token for this request to make the call idempotent. A random client token is generated if this is not provided. Required: No
-c <i>target-configuration</i>	New configuration settings for the Reserved Instances. Each configuration is specified by comma-separated, key-value pairs in double quotes. Key names are zone, count, platform, and instance-type. Zone and count are required. Network platform is optional if your account supports EC2-VPC; it must be specified if your account supports EC2-Classic. Instance type must be the same instance family as

Name	Description
	<p>the input Reserved Instances and defaults to the instance type of the input Reserved Instances when not specified. Default: None Required: Yes</p> <p>Example 1: (modifying Reserved Instances to one configuration) <code>ec2mri reserved-instances-id -c "zone=us-east-1a,count=1,platform=EC2-VPC,instance-type=m1.medium"</code></p> <p>Example 2: (modifying multiple Reserved Instances to multiple configurations) <code>ec2mri reserved-instances-id-1 reserved-instances-id-2 -c "zone=us-east-1a,count=1,platform=EC2-VPC,instance-type=m1.medium" -c "zone=us-east-1b,count=2,platform=EC2-Classic,instance-type=m1.medium"</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url url</code>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key aws_access_key_id</code>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>
<code>-W, --aws-secret-key aws_secret_access_key</code>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code></p>
<code>-T, --security-token delegation_token</code>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code></p>
<code>--connection-timeout timeout</code>	<p>The connection timeout, in seconds.</p> <p>Example: <code>--connection-timeout 30</code></p>



Option	Description
<code>--request-timeout</code> <code>timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the ID of the Reserved Instances modification request.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example changes the Availability Zone and platform of a Reserved Instance.

```
PROMPT> ec2-modify-reserved-instances f127bd27-b0fc-4568-8e3a-0e7b5example -c
"zone=us-east-1a,count=1,platform=EC2-VPC"
ReservedInstancesModification rimod-9939282f-3674-49b1-bc18-a77b4example
```

### Example 2

This example moves a subset of Reserved Instances to another Availability Zone.

```
PROMPT> ec2-modify-reserved-instances f127bd27-b0fc-4568-8e3a-0e7b5example
bbcd9749-c569-475c-9ba6-c3056example -c "zone=us-east-1a,count=1" -c
"zone=us-east-1b,count=1"
ReservedInstancesModification rimod-92b82c77-b62c-42d7-94c9-5e675example
```

### Example 3

This example modifies a Reserved Instance that has 25 m1.small instances so that 20 m1.small instances become 5 m1.large instances in us-east-1a, and the remaining 5 instances are migrated to EC2-VPC in us-east-1b.

```
PROMPT> ec2-modify-reserved-instances 93bbbca2-b117-4653-823f-312ae4b8bad8
-c "zone=us-east-1b,platform=EC2-VPC,count=5,instance-type=m1.small" -c
"zone=us-east-1a,platform=EC2-Classic,count=5,instance-type=m1.large"
ReservedInstancesModification rimod-2d1d3ce0-71de-4cc7-ab60-5bdd7example
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [DescribeReservedInstancesModifications](#)

### Related Commands

- [ec2-describe-reserved-instances \(p. 398\)](#)

- [ec2-describe-reserved-instances-modifications](#) (p. 408)

## ec2-modify-snapshot-attribute

### Description

Adds or remove permission settings for the specified snapshot.

The short version of this command is **ec2msnapatt**.

**Tip**

If you are using the AWS CLI, see [modify-snapshot-attribute](#) instead.

### Syntax

```
ec2-modify-snapshot-attribute snapshot_id -c [--add entity | --remove entity]
```

### Options

Name	Description
<i>snapshot_id</i>	The ID of the snapshot. Type: String Default: None Required: Yes Example: snap-78a54011
<code>-c, --create-volume-permission</code>	Modifies the create volume permissions of the snapshot. Type: String Default: None Required: Yes Example: -c
<code>-a, --add <i>entity</i></code>	Adds a permission for the specified AWS account or for all accounts. <b>Note</b> Snapshots with AWS Marketplace product codes can't be made public. Type: String Valid values: <i>AWS account ID</i>   all Default: None Required: No Example: -c --add all
<code>--remove <i>entity</i></code>	Removes a permission for the specified AWS account or for all accounts. Type: String Valid values: <i>AWS account ID</i>   all Default: None Required: No Example: -c --remove all

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The `createVolumePermission` identifier
- The ID of the snapshot
- The action performed on the attribute
- The attribute or attribute list item value type
- The attribute or attribute list item value

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command makes the snapshot with the ID `snap-1a2b3c4d` public.

```
PROMPT> ec2-modify-snapshot-attribute snap-1a2b3c4d -c --add all  
createVolumePermission snap-1a2b3c4d ADD group all
```

The example command shares the snapshot with a particular AWS account.

```
PROMPT> ec2-modify-snapshot-attribute snap-1a2b3c4d -c --add account_id
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifySnapshotAttribute](#)

### Related Commands

- [ec2-create-snapshot](#) (p. 166)
- [ec2-describe-snapshot-attribute](#) (p. 426)
- [ec2-describe-snapshots](#) (p. 429)
- [ec2-reset-snapshot-attribute](#) (p. 680)

## ec2-modify-subnet-attribute

### Description

Modifies a subnet attribute.

The short version of this command is **ec2msubnetatt**.

#### Tip

If you are using the AWS CLI, see [modify-subnet-attribute](#) instead.

### Syntax

```
ec2-modify-subnet-attribute subnet_id [--map-public-ip-on-launch Boolean]
```

### Options

Name	Description
<i>subnet_id</i>	The ID of the subnet.

Name	Description
	Type: String Default: None Required: Yes Example: subnet-1a2b3c4d
<code>-m, --map-public-ip-on-launch value</code>	Modifies the public IP addressing behavior for the subnet. Specify <code>true</code> to indicate that instances launched into the specified subnet should be assigned a public IP address. If set to <code>true</code> , the instance receives a public IP address only if it's launched with a single, new network interface with the device index of 0. Type: Boolean Default: If modifying a nondefault subnet, the default is <code>false</code> ; if modifying a default subnet, the default is <code>true</code> . Required: No Example: <code>--map-public-ip-on-launch true</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>

Option	Description
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>



## Output

This command returns `true` if the command succeeded and `false` otherwise.

## Examples

### Example

This example command modifies `subnet-1a2b3c4d` to specify that all instances launched into this subnet are assigned a public IP address.

```
PROMPT> ec2-modify-subnet-attribute subnet-1a2b3c4d --map-public-ip-on-launch true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifySubnetAttribute](#)

### Related Commands

- [ec2-create-subnet \(p. 173\)](#)
- [ec2-describe-subnets \(p. 452\)](#)

## ec2-modify-volume-attribute

### Description

Modifies a volume attribute.

By default, all I/O operations for the volume are suspended when the data on the volume is determined to be potentially inconsistent, to prevent undetectable, latent data corruption. The I/O access to the volume can be resumed by first issuing the [ec2-enable-volume-io \(p. 544\)](#) command to enable I/O access and then checking the data consistency on your volume.

You can change the default behavior to resume I/O operations without issuing the [ec2-enable-volume-io \(p. 544\)](#) command by setting the `auto-enable-io` attribute of the volume to `true`. We recommend that you change this attribute only for volumes that are stateless or disposable, or for boot volumes.

The short version of this command is **ec2mvolatt**.

**Tip**

If you are using the AWS CLI, see [modify-volume-attribute](#) instead.

## Syntax

`ec2-modify-volume-attribute volume_id ... --auto-enable-io value`

## Options

Name	Description
<code>volume_id</code>	The ID of the volume. Type: String Required: Yes Example: vol-4282672b
<code>-a --auto-enable-io <i>value</i></code>	Specifies whether the volume should be auto-enabled for I/O operations. Type: Boolean Required: Yes Example: --auto-enable-io true

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).

Option	Description
	Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the volume
- The attribute name
- The attribute type identifier
- The attribute value

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command modifies the `autoEnableIo` attribute of the volume with the ID `vol-999999`.

```
PROMPT> ec2-modify-volume-attribute vol-999999 --auto-enable-io true
VolumeId      Attribute
vol-999999    autoEnableIo
AUTO-ENABLE-IO true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyVolumeAttribute](#)

### Related Commands

- [ec2-describe-volume-attribute \(p. 461\)](#)
- [ec2-describe-volume-status \(p. 465\)](#)
- [ec2-enable-volume-io \(p. 544\)](#)

## ec2-modify-vpc-attribute

### Description

Modifies the specified attribute of the specified VPC.

**Tip**

If you are using the AWS CLI, see [modify-vpc-attribute](#) instead.

## Syntax

```
ec2-modify-vpc-attribute --vpc vpc-id [--dns-support {true|false}] [--dns-hostnames {true|false}]
```

## Options

Name	Description
<code>-c, --vpc <i>vpc-id</i></code>	The ID of the VPC. Type: String Required: Yes Example: <code>vpc-1a2b3c4d</code>
<code>-s, --dns-support {true false}</code>	Indicates whether the DNS resolution is supported for the VPC. If this attribute is <code>false</code> , the Amazon provided DNS service in the VPC that resolves public DNS hostnames to IP addresses is not enabled. If this attribute is <code>true</code> , queries to the Amazon provided DNS server at the 169.254.169.253 IP address, or the reserved IP address at the base of the VPC network range "plus two" will succeed. Type: Boolean Default: <code>true</code> Required: Conditional Condition: You must specify either <code>--dns-support</code> or <code>--dns-hostnames</code> , but not both. Example: <code>--dns-support true</code>
<code>-d, --dns-hostnames {true false}</code>	Specifies whether the instances launched in the VPC get DNS hostnames. If this attribute is <code>true</code> , instances in the VPC get DNS hostnames; otherwise, they do not. You can only set <code>--dns-hostname</code> to <code>true</code> if you've set <code>--dns-support</code> to <code>true</code> . Type: Boolean Default: <code>true</code> Required: Conditional Condition: You must specify either <code>--dns-support</code> or <code>--dns-hostnames</code> , but not both. Example: <code>--dns-hostnames false</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns `true` if the command succeeded and `false` otherwise.

## Examples

### Example

This example command disables support for DNS hostnames in the specified VPC.

```
PROMPT> ec2-modify-vpc-attribute --vpc vpc-1a2b3c4d --dns-hostnames false
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyVpcAttribute](#)

## Related Commands

- [ec2-describe-vpc-attribute](#) (p. 477)

# ec2-modify-vpc-endpoint

## Description

Modifies attributes of a specified VPC endpoint. You can modify the policy associated with the endpoint, and you can add and remove route tables associated with the endpoint.

The short version of this command is **ec2mve**.

### Tip

If you are using the AWS CLI, see [modify-vpc-endpoint](#) instead.

## Syntax

```
ec2-modify-vpc-endpoint --vpc-endpoint vpce [--reset-policy-document] [--policy-document policy_document] [--add-route-tables route_table] [--remove-route-tables route_table]
```

## Options

Name	Description
<code>-e, --vpc-endpoint <i>vpce</i></code>	The ID of the endpoint. Type: String Default: None Required: Yes Example: <code>-e vpce-1a2b3c4d</code>
<code>--reset-policy-document</code>	Specify <code>true</code> to set the policy document to the default policy. The default policy allows access to the service. Type: Boolean Default: False Required: No Example: <code>--reset-policy-document</code>
<code>-p --policy-document <i>policy_document</i></code>	A policy document to attach to the endpoint that controls access to the specified service. The document must be a valid JSON file. Type: String Default: None Required: No Example: <code>--policy-document my-endpoint-policy.json</code>
<code>-a --add-route-tables <i>route_table</i></code>	The ID of a route table to associate with the endpoint. Specify this parameter more than one time for multiple route tables. Type: String Default: None



Name	Description
	Required: No Example: -a rtb-111bbb22
-r --remove-route-tables <i>route-table</i>	The ID of a route table to disassociate from the endpoint. Specify this parameter more than one time for multiple route tables. Type: String Default: None Required: No Example: -r rtb-333ddd44

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option. Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the EC2_URL environment variable, or https://ec2.amazonaws.com if EC2_URL isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the AWS_ACCESS_KEY environment variable. If AWS_ACCESS_KEY isn't set, you must specify this option. Example: -O AKIAIOSFODNN7EXAMPLE
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the AWS_SECRET_KEY environment variable. If AWS_SECRET_KEY isn't set, you must specify this option. Example: -W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
-T, --security-token <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the AWS_DELEGATION_TOKEN environment variable (if set). Example: -T AqoDYXdzEJr...<remainder of security token>
--connection-timeout <i>timeout</i>	The connection timeout, in seconds. Example: --connection-timeout 30
--request-timeout <i>timeout</i>	The request timeout, in seconds. Example: --request-timeout 45
-H, --headers	Includes column headers in the command output.

Option	Description
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns `true` if the request succeeded; otherwise, it returns an error.

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example 1

This example modifies endpoint `vpce-1a2b3c4d` by associating route table `rtb-aaa222bb` with the endpoint, and resetting the policy document.

```
PROMPT> ec2-modify-vpc-endpoint -e vpce-1a2b3c4d --add-route-tables rtb-aaa222bb --reset-policy-document
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ModifyVpcEndpoint](#)

### Related Commands

- [ec2-create-vpc-endpoint](#) (p. 190)
- [ec2-delete-vpc-endpoints](#) (p. 264)
- [ec2-describe-prefix-lists](#) (p. 390)
- [ec2-describe-vpc-endpoints](#) (p. 484)
- [ec2-describe-vpc-endpoint-services](#) (p. 488)

## ec2-monitor-instances

### Description

Enables monitoring for a running instance. For more information, see [Monitoring Your Instances and Volumes](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2min`.

#### Tip

If you are using the AWS CLI, see [monitor-instances](#) instead.

### Syntax

```
ec2-monitor-instances instance_id [instance_id...]
```

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-43a4412a

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .

Option	Description
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the instance
- The monitoring state

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command enables monitoring for the two instances.

```
PROMPT> ec2-monitor-instances i-43a4412a i-23a3397d  
i-43a4412a monitoring-pending  
i-23a3397d monitoring-pending
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [MonitorInstances](#)

### Related Commands

- [ec2-run-instances \(p. 693\)](#)
- [ec2-unmonitor-instances \(p. 723\)](#)

# ec2-purchase-reserved-instances-offering

## Description

Purchases a Reserved Instance for use with your account. With Amazon EC2 Reserved Instances, you obtain a capacity reservation for a certain instance configuration over a specified period of time. You pay a lower usage rate than with On-Demand instances for the time that you actually use the capacity reservation.

For information about Reserved Instance pricing tiers, see [Understanding Reserved Instance pricing tiers](#) in the *Amazon EC2 User Guide for Linux Instances*. For more information about Reserved Instances, see [Reserved Instances](#) also in the *Amazon EC2 User Guide for Linux Instances*.

You determine the type of the Reserved Instances offerings by including the optional *offeringType* parameter when calling `ec2-describe-reserved-instances-offerings`. After you've identified the Reserved Instance with the offering type you want, specify its *ReservedInstancesOfferingId* when you call `ec2-purchase-reserved-instances-offering`.

Starting with the 2012-08-15 API version, you can also purchase Reserved Instances from the Reserved Instance Marketplace. The Reserved Instance Marketplace matches sellers who want to resell Reserved Instance capacity that they no longer need with buyers who want to purchase additional capacity. Reserved Instances bought from third parties through the Reserved Instance Marketplace work like any other Reserved Instances.

By default, with the 2012-08-15 API version, `ec2-describe-reserved-instances-offerings` returns information about Amazon EC2 Reserved Instances available directly from AWS, plus instance offerings available from third parties, on the Reserved Instance Marketplace. If you are using tools that predate the 2012-08-15 API version, the `ec2-describe-reserved-instances-offerings` action will only list information about Amazon EC2 Reserved Instances available directly from AWS.

For more information about the Reserved Instance Marketplace, see [Reserved Instance Marketplace](#) in the *Amazon EC2 User Guide for Linux Instances*.

You determine the Reserved Instance Marketplace offerings by specifying `true` for the optional `includeMarketplace` parameter when calling `ec2-describe-reserved-instances-offerings`. After you've identified the Reserved Instance with the offering type you want, specify its `reservedInstancesOfferingId` when you call `ec2-purchase-reserved-instances-offering`.

The short version of this command is **ec2prio**.

**Tip**

If you are using the AWS CLI, see [purchase-reserved-instances-offering](#) instead.

## Syntax

```
ec2-purchase-reserved-instances-offering --offering offering --instance-count
count [-l limit-price]
```

## Options

Name	Description
<code>-o, --offering <i>offering</i></code>	The offering ID of the Reserved Instance to purchase. Type: String Default: None Required: Yes Example: <code>-o 4b2293b4-5813-4cc8-9ce3-1957fexample</code>
<code>-c, --instance-count <i>count</i></code>	The number of Reserved Instances to purchase. Type: Integer Default: None Required: Yes Example: <code>-c 5</code>
<code>-l <i>limit-price</i></code>	The maximum price that you are willing to pay. Type: Integer Default: None Required: Yes Example: <code>-c 5</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .



Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a table that contains the following information:

- RESERVEDINSTANCES identifier
- The ID of the purchased Reserved Instances

Amazon EC2 command line tools display errors on stderr.

## Examples

This example command illustrates a purchase of a Reserved Instances offering.

```
PROMPT> ec2-purchase-reserved-instances-offering --offering 649fd0c8-
becc-49d9-b259-fc8e2example --instance-count 3
RESERVEDINSTANCES b847fa93-0c31-405b-b745-b6bf0example
```

## Related Operations

- [ec2-describe-reserved-instances-offerings](#) (p. 413)
- [ec2-describe-reserved-instances](#) (p. 398)

## ec2-reboot-instances

### Description

Requests a reboot of one or more instances. This operation is asynchronous; it only queues a request to reboot the specified instances. The operation succeeds if the instances are valid and belong to you. Requests to reboot terminated instances are ignored.

For more information, see [Reboot Your Instance](#) and [Getting Console Output and Rebooting Instances](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2reboot**.

#### Tip

If you are using the AWS CLI, see [reboot-instances](#) instead.

### Syntax

```
ec2-reboot-instances instance_id [instance_id ...]
```

### Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-3ea74257

### Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- This command displays no output on success

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command reboots an instance.

```
PROMPT> ec2-reboot-instances i-28a64341  
-
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RebootInstances](#)

### Related Commands

- [ec2-run-instances \(p. 693\)](#)

# ec2-register

## Description

Registers an AMI. When you're creating an AMI, this is the final step you must complete before you can launch an instance from the AMI. For more information, see [Creating Your Own AMIs](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Note

The `ec2-create-image` (p. 123) command creates and registers the AMI in a single request, so you don't have to register the AMI yourself.

You can also use `ec2-register` to create an Amazon EBS-backed Linux AMI from a snapshot of a root device volume. For more information, see [Launching an Instance from a Snapshot](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Important

Some Linux distributions, such as Red Hat Enterprise Linux (RHEL) and SUSE Linux Enterprise Server (SLES), use the EC2 `billingProduct` code associated with an AMI to verify subscription status for package updates. Creating an AMI from an EBS snapshot does not maintain this billing code, and subsequent instances launched from such an AMI will not be able to connect to package update infrastructure.

Similarly, although you can create a Windows AMI from a snapshot, you can't successfully launch an instance from the AMI.

To create Windows AMIs or to create AMIs for Linux operating systems that must retain AMI billing codes to work properly, see `ec2-create-image` (p. 123).

If needed, you can deregister an AMI at any time. Any modifications you make to an AMI backed by instance storage invalidates its registration. If you make changes to an image, deregister the previous image and register the new image.

### Note

You can't register an image if a secondary (non-root) snapshot has AWS Marketplace product codes.

The short version of this command is `ec2reg`.

### Tip

If you are using the AWS CLI, see `register-image` instead.

## Syntax

```
ec2-register { [manifest] -n name [-d description] [-a architecture] [-s snapshot_id] [--root-device-name name] [-b mapping [...]] [--kernel kernel_id] [--ramdisk ramdisk_id] [--virtualization-type virtualization_type] [--sriov sriov] }
```

## Options

Name	Description
<i>manifest</i>	The full path to your AMI manifest in Amazon S3 storage. Type: String Default: None Required: Conditional Condition: Required if registering an instance store-backed AMI. Example: myawsbucket/image.manifest.xml

Name	Description
<p><code>-n, --name <i>name</i></code></p>	<p>A name for your AMI. Type: String Default: None Constraints: 3-128 alphanumeric characters, parentheses (()), square brackets ([]), periods (.), slashes (/), dashes (-), single quotes ('), at-signs (@), or underscores(_). Allows spaces if the name is enclosed in quotation marks. Required: Yes Example: <code>-n "Standard Web Server"</code></p>
<p><code>-d, --description <i>description</i></code></p>	<p>A description for your AMI. Type: String Default: None Constraints: Up to 255 characters. Required: No Example: <code>-d "Standard Web Server AMI"</code></p>
<p><code>-a, --architecture <i>architecture</i></code></p>	<p>The architecture of the AMI. Type: String Valid values: <code>i386   x86_64</code> Default: None Required: No Example: <code>-a i386</code></p>
<p><code>-s, --snapshot <i>snapshot</i></code></p>	<p>The ID of the Amazon EBS snapshot to be used as the root device. Type: String Default: None Required: No Example: <code>-s snap-78a54011</code></p>
<p><code>--root-device-name <i>name</i></code></p>	<p>The name of the root device (for example, <code>/dev/sda1</code> or <code>xvda</code>). Type: String Default: <code>/dev/sda1</code> Required: No Example: <code>--root-device-name /dev/sda1</code></p>

Name	Description
<p><code>-b, --block-device-mapping mapping</code></p>	<p>An entry for the block device mapping for the instance. You can specify multiple <code>--block-device-mapping</code> options in one call. For more information, see <a href="#">Block Device Mapping</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Each entry is passed in the form <code>&lt;devicename&gt;=&lt;blockdevice&gt;</code>. The <i>devicename</i> is the device name of the physical device on the instance to map, and <i>blockdevice</i> can be one of the following values:</p> <ul style="list-style-type: none"> <li><code>none</code> – Suppresses an existing mapping of the device from the AMI used to launch the instance. For example: <code>/dev/sdc=none</code>.</li> <li><code>ephemeral<i>n</i></code> – An instance store volume to be mapped to the device. Instance store volumes are numbered starting from 0. An instance type with 2 available instance store volumes can specify mappings for <code>ephemeral0</code> and <code>ephemeral1</code>. For example: <code>/dev/sdc=ephemeral0</code>.</li> <li><code>[snapshot-id]:[volume-size]:[delete-on-termination]:[volume-type][:iops]:[encrypted]</code> – An Amazon EBS volume to map to the device. <ul style="list-style-type: none"> <li><code>[snapshot-id]</code> To create a volume from a snapshot, specify the snapshot ID.</li> <li><code>[volume-size]</code> To create an empty Amazon EBS volume, omit the snapshot ID and specify a volume size instead. For example: <code>/dev/sdh=:20</code>.</li> <li><code>[delete-on-termination]</code> To prevent deletion on instance termination, specify <code>false</code>. The default for the root volume is <code>true</code> and the default for other volumes is <code>false</code>. For more information, see <a href="#">Preserving Amazon EBS Volumes on Instance Termination</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[volume-type]</code> The default volume type is <code>standard</code>. To create a General Purpose SSD volume, specify <code>gp2</code>. To create a Provisioned IOPS SSD volume, specify <code>io1</code>. If the volume type is <code>io1</code>, you must also specify the number of IOPS that the volume should support. For more information, see <a href="#">Amazon EBS Volume Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[iops]</code> The number of provisioned IOPS that the volume supports (this option is only valid with <code>io1</code> volume types).</li> <li><code>[encrypted]</code> To encrypt the volume, specify <code>true</code>. Volumes created from encrypted snapshots are automatically encrypted. An encrypted Amazon EBS volume must</li> </ul> </li> </ul>

Name	Description
	<p>be attached to an instance that supports Amazon EBS encryption. If your AMI uses an encrypted volume, you must launch it using a supported instance type. For more information, see <a href="#">Amazon EBS Encryption</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>-b "/dev/sdc=snap-7eb96d16:100:false:io1:500"</code></p> <p><b>Note</b> On Windows, the <i>mapping</i> argument must be enclosed in double quotes, as shown in the example.</p> <p><b>Note</b> For M3 instances, you must specify instance store volumes in the block device mapping for the instance. When you launch an M3 instance, we ignore any instance store volumes specified in the block device mapping for the AMI.</p>
<p><code>--kernel <i>kernel_id</i></code></p>	<p>The ID of the kernel associated with the image.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--kernel aki-ba3adfd3</code></p>
<p><code>--ramdisk <i>ramdisk_id</i></code></p>	<p>The ID of the RAM disk to associate with the image.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--ramdisk ari-badbad00</code></p>



Name	Description
<code>--virtualization-type</code> <i>virtualization_type</i>	<p>The type of virtualization for the AMI you are registering. This option is required to register HVM images; see the example below.</p> <p>Type: String</p> <p>Valid values: <code>paravirtual</code>   <code>hvm</code></p> <p>Default: <code>paravirtual</code></p> <p>Required: No</p> <p>Example: <code>--virtualization-type hvm</code></p>
<code>--sriov</code> <i>sriov</i>	<p>Set to <code>simple</code> to enable enhanced networking for the AMI and any instances that you launch from the AMI. There is no way to disable enhanced networking at this time. For more information, see <a href="#">Enabling Enhanced Networking on Linux Instances</a> in the <i>Amazon EC2 User Guide for Linux Instances</i> or <a href="#">Enabling Enhanced Networking on Windows Instances</a> in the <i>Amazon EC2 User Guide for Windows Instances</i>.</p> <p><b>Warning</b></p> <p>This option is supported only for HVM AMIs. Specifying this option with a PV AMI can make instances launched from the AMI unreachable.</p> <p>Type: String</p> <p>Valid values: <code>simple</code></p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--sriov simple</code></p>

## Common Options

Option	Description
<code>--region</code> <i>region</i>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url</code> <i>url</i>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: <code>-O AKIAIOSFODNN7EXAMPLE</code></p>

Option	Description
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The IMAGE identifier
- The ID of the newly registered machine image

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command registers an AMI using the specified `image.manifest.xml` manifest file, located in the bucket named `myawsbucket`.

```
PROMPT> ec2-register myawsbucket/image.manifest.xml -n MyImage  
IMAGE ami-1a2b3c4d
```

### Example 2

When you register an Amazon EBS-backed AMI from a snapshot, at a minimum you must specify a snapshot or a block device mapping for the root device. This example command specifies a snapshot for the root device. By default, the root device is `/dev/sda1`.

```
PROMPT> ec2-register -n MyImage -s snap-1a2b3c4d  
IMAGE ami-1a2b3c4d
```

### Example 3

This example command registers an AMI with a block device mapping for three Amazon EBS volumes. The first volume is the root device volume based on an Amazon EBS snapshot. The second volume is a volume based on another snapshot. The third volume is an empty 100 GiB volume.

```
PROMPT> ec2-register -n MyImage -b "/dev/sda1=snap-1a2b3c4d" -b "/dev/sdb=snap-2a3b4c5d" -b "/dev/sdc=:100"
```

```
IMAGE ami-1a2b3c4d
```

## Example 4

This example command registers an AMI with two volumes. The first volume is the root volume based on an Amazon EBS snapshot. The `DeleteOnTermination` flag of the root volume is set to `false`. The second volume is an instance store volume, `ephemeral0`.

```
PROMPT> ec2-register -n MyImage -b "/dev/sda1=snap-1a2b3c4d:80:false" -b "/dev/sdc=ephemeral0"
IMAGE ami-1a2b3c4d
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RegisterImage](#)

### Related Commands

- [ec2-deregister \(p. 279\)](#)
- [ec2-describe-images \(p. 329\)](#)
- [ec2-run-instances \(p. 693\)](#)

# ec2-reject-vpc-peering-connection

## Description

Rejects a VPC peering connection request. The VPC peering connection must be in the `pending-acceptance` state. Use the [ec2-describe-vpc-peering-connections \(p. 491\)](#) command to view your outstanding VPC peering connection requests.

### Note

To delete an active VPC peering connection, or to delete a VPC peering connection request that you initiated, use the [ec2-delete-vpc-peering-connection \(p. 267\)](#) command.

The short version of this command is **ec2rpcx**.

### Tip

If you are using the AWS CLI, see [reject-vpc-peering-connection](#) instead.

## Syntax

`ec2-reject-vpc-peering-connection` *vpc\_peering\_connection*

## Options

Name	Description
<i>vpc_peering_connection</i>	The VPC peering connection ID. Type: String Default: None Required: Yes Example: pcx-1a2b3c4d

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U</code> , <code>--url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O</code> , <code>--aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W</code> , <code>--aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T</code> , <code>--security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds.

Option	Description
	Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns true if the operation succeeds, or an error if the operation does not succeed.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example rejects the specified VPC peering connection request.

```
PROMPT> ec2-reject-vpc-peering-connection pcx-1a2b3c4d  
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RejectVpcPeeringConnection](#)

### Related Commands

- [ec2-accept-vpc-peering-connection \(p. 34\)](#)
- [ec2-delete-vpc-peering-connection \(p. 267\)](#)
- [ec2-describe-vpc-peering-connections \(p. 491\)](#)
- [ec2-create-vpc-peering-connection \(p. 194\)](#)
- [ec2-create-route \(p. 159\)](#)
- [ec2-replace-route \(p. 647\)](#)

## ec2-release-address

### Description

Releases the specified Elastic IP address.

#### Important

After releasing an Elastic IP address, it is released to the public IP address pool for the platform and might be unavailable to you. Make sure to update your DNS records and any servers or devices that communicate with the address. If you attempt to release an Elastic IP address that you already released, you'll get an `AuthFailure` error if the address is already allocated to another AWS account.

An Elastic IP address is for use either in the EC2-Classic platform or in a VPC. For more information, see [Elastic IP Addresses](#) in the *Amazon EC2 User Guide for Linux Instances*.

[EC2-Classic, default VPC] Releasing an Elastic IP address automatically disassociates it from any instance that it's associated with. To disassociate an Elastic IP address without releasing it, use the `ec2-disassociate-address` command.

[Nondefault VPC] You must use the `ec2-disassociate-address` command to disassociate the Elastic IP address before you try to release it. Otherwise, Amazon EC2 returns an error (`InvalidIPAddress.InUse`).

The short version of this command is **ec2reladdr**.

**Tip**

If you are using the AWS CLI, see [release-address](#) instead.

## Syntax

```
ec2-release-address [ip_address | -a allocation_id]
```

## Options

Name	Description
<i>ip_address</i>	[EC2-Classic] The Elastic IP address. Type: String Default: None Required: Conditional Condition: Required for EC2-Classic. Example: 192.0.2.1
-a, --allocation-id <i>allocation_id</i>	[EC2-VPC] The allocation ID. Type: String Default: None Required: Conditional Condition: Required for EC2-VPC. Example: -a eipalloc-5723d13e

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .



Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ADDRESS identifier
- [EC2-Classical] The Elastic IP address
- [EC2-VPC] The allocation ID

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command releases an Elastic IP address for EC2-Classical.

```
PROMPT> ec2-release-address 192.0.2.1  
ADDRESS 192.0.2.1
```

### Example 2

This example command releases an Elastic IP address for EC2-VPC.

```
PROMPT> ec2-release-address -a eipalloc-5723d13e  
ADDRESS eipalloc-5723d13e
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [ReleaseAddress](#)

## Related Commands

- [ec2-allocate-address](#) (p. 37)
- [ec2-associate-address](#) (p. 45)
- [ec2-describe-addresses](#) (p. 286)
- [ec2-disassociate-address](#) (p. 534)

# ec2-replace-network-acl-association

## Description

Changes which network ACL a subnet is associated with. By default when you create a subnet, it's automatically associated with the default network ACL. For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2repnaclassoc**.

### Tip

If you are using the AWS CLI, see [replace-network-acl-association](#) instead.

## Syntax

```
ec2-replace-network-acl-association network_acl_association_id -a  
network_acl_id
```

## Options

Name	Description
<i>network_acl_association_id</i>	The ID of the current association between the original network ACL and the subnet. Type: String Default: None Required: Yes Example: aclassoc-33ae4b5a
-a, --network-acl <i>network_acl_id</i>	The ID of the new ACL to associate with the subnet. Type: String Default: None Required: Yes Example: -a acl-10b95c79

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .

Option	Description
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ASSOCIATION identifier
- The new association ID
- The ID of the network ACL

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command starts with a network ACL associated with a subnet, and the corresponding association ID `aclassoc-e5b95c8c`. You want to associate a different network ACL (with the ID `acl-5fb85d36`) with the subnet. The result is a new association ID that represents the new association.

```
PROMPT> ec2-replace-network-acl-association aclassoc-e5b95c8c -a acl-5fb85d36  
ASSOCIATION aclassoc-17b85d7e acl-5fb85d36
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ReplaceNetworkAclAssociation](#)

### Related Commands

- [ec2-create-network-acl \(p. 140\)](#)
- [ec2-delete-network-acl \(p. 227\)](#)
- [ec2-describe-network-acls \(p. 370\)](#)

## ec2-replace-network-acl-entry

### Description

Replaces an entry (rule) in a network ACL. For more information, see [Network ACLs](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2repnae**.

#### Tip

If you are using the AWS CLI, see [replace-network-acl-entry](#) instead.

### Syntax

```
ec2-replace-network-acl-entry acl_id -n rule_number [--egress] -P protocol -r  
cidr [-p port_range] [-t icmp_type_code] { --allow | --deny }
```

### Options

Name	Description
<i>acl_id</i>	The ID of the ACL. Type: String Default: None Required: Yes Example: acl-5fb85d36

Name	Description
<code>-n, --rule-number rule_number</code>	The rule number of the entry to replace. Type: Number Default: None Required: Yes Example: <code>-n 100</code>
<code>--egress</code>	Optional flag to indicate whether to replace the egress rule. Default: If no value is specified, we replace the ingress rule Required: No
<code>-P, --protocol protocol</code>	The IP protocol. You can specify <code>all</code> or <code>-1</code> to mean all protocols. Type: String Valid values: <code>all</code>   <code>-1</code>   <code>tcp</code>   <code>udp</code>   <code>icmp</code> or any protocol number (for a list, see <a href="#">Protocol Numbers</a> ). Required: Yes Example: <code>-P 6</code>
<code>-r, --cidr cidr</code>	The CIDR range to allow or deny, in CIDR notation. Type: String Default: None Required: Yes Example: <code>-r 172.16.0.0/24</code>
<code>-p, --port-range port_range</code>	For TCP or UDP: The range of ports to allow. Type: String Valid values: A single integer or a range (min-max). You can specify <code>-1</code> to mean all ports (for example, port range 0-65535). Default: None Condition: Required if specifying <code>tcp</code> or <code>udp</code> (or the equivalent number) for the protocol. Required: Conditional Example: <code>-p 80-84</code>
<code>-t, --icmp-type-code icmp_type_code</code>	For ICMP: The ICMP type and code using format <code>type:code</code> , where both are integers. You can use <code>-1</code> for the type or code to mean all types or all codes Type: String Default: None Required: Conditional Condition: Required if specifying <code>icmp</code> (or the equivalent number) for the protocol. Example: <code>-t -1:-1</code>
<code>--allow</code>	Allows any traffic matching the rule. Required: Conditional Condition: Either <code>--allow</code> or <code>--deny</code> must be specified, but not both.

Name	Description
<code>--deny</code>	Denies any traffic matching the rule. Required: Conditional Condition: Either <code>--allow</code> or <code>--deny</code> must be specified, but not both.

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.



Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command replaces the egress entry numbered 110 in the network ACL with the ID `acl-2cb85d45`. The new rule denies egress traffic destined for anywhere (`0.0.0.0/0`) on TCP port 139.

```
PROMPT> ec2-replace-network-acl-entry acl-2cb85d45 -n 110 --egress -r
0.0.0.0/0 -P tcp -p 139 --deny
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ReplaceNetworkAclEntry](#)

### Related Commands

- [ec2-create-network-acl-entry \(p. 143\)](#)
- [ec2-delete-network-acl-entry \(p. 230\)](#)
- [ec2-describe-network-acls \(p. 370\)](#)

## ec2-replace-route

### Description

Replaces an existing route within a route table in a VPC. For more information about route tables, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is `ec2reprt`.

#### Tip

If you are using the AWS CLI, see [replace-route](#) instead.

### Syntax

```
ec2-replace-route route_table_id -r cidr {-g gateway_id | -i instance_id | -n, --network-interface interface_id | -p vpc_peering_connection}
```

## Options

Name	Description
<code>route_table_id</code>	The ID of the route table. Type: String Default: None Required: Yes Example: rtb-5da34634
<code>-r, --cidr cidr</code>	The CIDR address block used for the destination match. The value you provide must match the CIDR of an existing route in the table. Type: String Default: None Required: Yes Example: -r 0.0.0.0/0
<code>-g, --gateway gateway_id</code>	The ID of a virtual private gateway or Internet gateway attached to your VPC. Type: String Default: None Required: Conditional Condition: You must provide one of the following: a gateway ID, instance ID, VPC peering connection, or network interface ID. Example: -g igw-68a34601
<code>-i, --instance instance_id</code>	The ID of a NAT instance in your VPC. Type: String Default: None Required: Conditional Condition: You must provide one of the following: a gateway ID, instance ID, VPC peering connection, or a network interface ID. Example: -i i-a7c871e3
<code>-n, --network-interface interface_id</code>	The ID of a network interface associated with the route. Type: String Default: None Required: Conditional Condition: You must provide one of the following: a gateway ID, instance ID, VPC peering connection, or a network interface. Example: -n eni-5b729933

Name	Description
<code>-p, --vpc-peering-connection vpc_peering_connection</code>	The VPC peering connection associated with the route. Type: String Default: None Required: Conditional Condition: You must provide one of the following: a gateway ID, instance ID, VPC peering connection, or a network interface. Example: <code>-p pcx-1a2b3c4d</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.

Option	Description
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- Success status (`true` or `false`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command replaces a route in the specified route table. The new route matches the CIDR 10.0.0.0/8 and sends the traffic to the virtual private gateway with the ID `vgw-1d00376e`.

```
PROMPT> ec2-replace-route rtb-e4ad488d -r 10.0.0.0/8 -g vgw-1d00376e
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ReplaceRoute](#)

### Related Commands

- [ec2-create-route \(p. 159\)](#)
- [ec2-delete-route \(p. 240\)](#)
- [ec2-describe-route-tables \(p. 421\)](#)

## ec2-replace-route-table-association

### Description

Changes the route table associated with a subnet in a VPC. After the operation completes, the subnet uses the routes in the new route table it's associated with.

You can also use this command to change which table is the main route table in the VPC. Specify the main route table's association ID and the route table that you want to be the new main route table.

For more information about route tables, see [Route Tables](#) in the *Amazon VPC User Guide*.

The short version of this command is `ec2reprtassoc`.

#### Tip

If you are using the AWS CLI, see [replace-route-table-association](#) instead.

## Syntax

```
ec2-replace-route-table-association route_table_association_id -r route_table_id
```

## Options

Name	Description
<i>route_table_association_id</i>	The association ID. Type: String Default: None Required: Yes Example: rtbassoc-93a045fa
-r <i>route_table_id</i>	The ID of the new route table to associate with the subnet. Type: String Default: None Required: Yes Example: -r rtb-6aa34603

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option. Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the EC2_URL environment variable, or https://ec2.amazonaws.com if EC2_URL isn't set.
-O, --aws-access-key <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the AWS_ACCESS_KEY environment variable. If AWS_ACCESS_KEY isn't set, you must specify this option. Example: -O AKIAIOSFODNN7EXAMPLE
-W, --aws-secret-key <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the AWS_SECRET_KEY environment variable. If AWS_SECRET_KEY isn't set, you must specify this option. Example: -W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY
-T, --security-token <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the AWS_DELEGATION_TOKEN environment variable (if set).

Option	Description
	Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>



## Output

This command returns a table that contains the following information:

- The ASSOCIATION identifier
- The new association ID
- The ID of the route table

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command starts with a route table associated with a subnet, and the corresponding association ID `rtbassoc-f8ad4891`. You want to associate a different route table (with the ID `rtb-f9ad4890`) to the subnet. The result is a new association ID that represents the new association.

```
PROMPT> ec2-replace-route-table-association rtbassoc-f8ad4891 -r rtb-f9ad4890  
ASSOCIATION    rtbassoc-61a34608  rtb-f9ad4890
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ReplaceRouteTableAssociation](#)

### Related Commands

- [ec2-create-route-table](#) (p. 163)
- [ec2-delete-route-table](#) (p. 243)
- [ec2-describe-route-tables](#) (p. 421)
- [ec2-disassociate-route-table](#) (p. 538)
- [ec2-replace-route-table-association](#) (p. 651)

# ec2-report-instance-status

## Description

Reports the status of the instance.

This command works only for instances that are in the `running` state. If you disagree with the instance status returned by the `ec2-report-instance-status` action, use `ec2-report-instance-status` command to report a more accurate status. Amazon EC2 collects this information to improve the accuracy of status checks.

### Note

Use of this action does not change the value returned by `ec2-report-instance-status`.

To report an instance's status, specify an instance ID with the `INSTANCE` parameter and a reason code with the `--reason` parameter that applies to that instance. The following table contains descriptions of all available reason codes.

<code>instance-stuck-in-state</code>	My instance is stuck in a state.
<code>unresponsive</code>	My instance is unresponsive.
<code>not-accepting-credentials</code>	My instance is not accepting my credentials.
<code>password-not-available</code>	A password is not available for my instance.
<code>performance-network</code>	My instance is experiencing performance problems which I believe are network related.
<code>performance-instance-store</code>	My instance is experiencing performance problems which I believe are related to the instance stores.
<code>performance-ebs-volume</code>	My instance is experiencing performance problems which I believe are related to an EBS volume.
<code>performance-other</code>	My instance is experiencing performance problems.
<code>other</code>	Other, explained in the submitted description parameter.

The short version of this command is **ec2rep**.

### Tip

If you are using the AWS CLI, see [report-instance-status](#) instead.

## Syntax

```
ec2-report-instance-status instance_id --status value --reason value [--start-time date] [--end-time date] [--description description]
```

## Options

Name	Description
<code>instance_id</code>	One or more instance IDs. Type: String

Name	Description
	Required: Yes Example: i-15a4417c
<code>--status value</code>	The status of all instances listed in the <code>instance_id</code> parameter. Type: String Valid values: ok   impaired Required: Yes
<code>--reason value</code>	A reason code that describes a specific instance's health state. Each code you supply corresponds to an instance ID that you supply with the <code>InstanceID.n</code> parameter. See the <a href="#">Description (p. 655)</a> section for descriptions of each reason code. Type: String Valid values: instance-stuck-in-state   unresponsive   not-accepting-credentials   password-not-available   performance-network   performance-instance-store   performance-efs-volume   performance-other   other Required: Yes
<code>--start-time date</code>	The time at which the reported instance health state began.  The date uses the format: yyyy-MM-dd'T'HH:mm:ss Type: DateTime Required: No Example: 2011-07-25T14:00:00
<code>--end-time date</code>	The time at which the reported instance health state ended.  The date uses the format: yyyy-MM-dd'T'HH:mm:ss Type: DateTime Required: No Example: 2011-07-25T14:00:00
<code>--description description</code>	Descriptive text about the instance health state. Type: String Default: None Required: No

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.  Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The request ID
- A Boolean return value that indicates whether Amazon EC2 accepted the values.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command reports the current state of the instance as `impaired`.

```
PROMPT> ec2-report-instance-status i-15a4417c --status="impaired" --reason="unresponsive"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [ReportInstanceStatus](#)

## Related Commands

- [ec2-describe-instance-status](#) (p. 343)

# ec2-request-spot-instances

## Description

Creates a Spot Instance request. Spot Instances are instances that Amazon EC2 launches when the bid price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information, see [Spot Instance Requests](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Note

Although you can specify encrypted EBS volumes in the launch specification for your Spot Instances, these volumes are not encrypted.

The short version of this command is **ec2rsi**.

### Tip

If you are using the AWS CLI, see [request-spot-instances](#) instead.

## Syntax

```
ec2-request-spot-instances ami_id --price price [--instance-count count] [--type type] [--valid-from timestamp] [--valid-until timestamp] [--launch-group group] [--availability-zone-group group] [--user-data data | --user-data-file data-file] [--group group [--group group ...]] [--key key-pair] [--instance-type type] [--subnet subnet_id] [--availability-zone zone] [--kernel kernel] [--ramdisk ramdisk] [--block-device-mapping mapping] [--monitor] [--iam-profile arn | name] [--network-attachment attachment] [--secondary-private-ip-address ip_address] | [--secondary-private-ip-address-count count]] [--ebs-optimized] [--associate-public-ip-address Boolean]
```

## Options

Name	Description
<code>ami_id</code>	The ID of the AMI. Type: String Default: None Required: Yes Example: ami-2bb65342
<code>-p, --price price</code>	The maximum hourly price for any Spot Instance launched to fulfill the request. Type: String Default: None Required: Yes Example: -p .15

Name	Description
<code>-n, --instance-count <i>count</i></code>	<p>The maximum number of Spot Instances to launch. Type: <code>xs:integer</code> Default: 1 Required: No Example: <code>-n 10</code></p>
<code>-r, --type <i>type</i></code>	<p>The Spot Instance request type. Type: <code>String</code> Valid values: <code>one-time   persistent</code> Default: <code>one-time</code> Required: No Example: <code>-r persistent</code></p>
<code>-s, --subnet <i>subnet_id</i></code>	<p>The ID of the subnet in which to launch the Spot Instance. Type: <code>String</code> Default: <code>None</code> Required: No Example: <code>-s subnet-bab943d3</code></p>
<code>--valid-from <i>date</i></code>	<p>The start date of the request. If this is a one-time request, the request becomes active at this date and time and remains active until all instances launch, the request expires, or the request is canceled. If the request is persistent, the request becomes active at this date and time and remains active until it expires or is canceled. Type: <code>DateTime</code> Default: Request is effective immediately. Required: No Example: <code>--valid-from 2009-12-31T11:51:50</code></p>
<code>--valid-until <i>date</i></code>	<p>The end date of the request. If this is a one-time request, the request remains active until all instances launch, the request is canceled, or this date is reached. If the request is persistent, it remains active until it is canceled or this date and time is reached. Type: <code>DateTime</code> Default: Request is effective immediately. Required: No Example: <code>--valid-until 2009-12-31T11:51:50</code></p>
<code>--launch-group <i>group</i></code>	<p>The instance launch group. Launch groups are Spot Instances that launch together and terminate together. Type: <code>String</code> Default: Instances are launched and terminated individually. Required: No Example: <code>--launch-group Skynet</code></p>

Name	Description
<p><code>--availability-zone-group</code> <i>group</i></p>	<p>The user-specified name for a logical grouping of bids.</p> <p>When you specify <code>--availability-zone-group</code> in a Spot Instance request, all Spot Instances in the request are launched in the same Availability Zone. Instance proximity is maintained with this parameter, but choice of Availability Zone is not. <code>--availability-zone-group</code> applies only to bids for Spot Instances of the same instance type. Any additional Spot Instance requests that are specified with the same <code>--availability-zone-group</code> name will be launched in that same Availability Zone, as long as at least one instance from the group is still active.</p> <p>If there is no active instance running in the Availability Zone group that you specify for a new Spot Instance request (for example, all instances are terminated, the bid is expired, or the bid falls below current market), then Amazon EC2 will launch the instance in any Availability Zone where the constraint can be met. Consequently, the subsequent set of Spot Instances could be placed in a different zone from the original request, even if the same <code>--availability-zone-group</code> name was specified.</p> <p>To ensure that all Spot Instances across all bids are launched into a particular Availability Zone, specify <code>LaunchSpecification.Placement.AvailabilityZone</code> in the API or <code>--availability-zone</code> in the CLI.</p> <p>Type: String</p> <p>Default: Instances are launched in any available Availability Zone.</p> <p>Required: No</p> <p>Example: <code>--availability-zone-group batchGroup01</code></p>
<p><code>--placement-group</code> <i>group_name</i></p>	<p>The name of an existing placement group you want to launch the instance into (for cluster instances).</p> <p>Type: String</p> <p>Default: Instances are launched in the default placement group.</p> <p>Required: No</p> <p>Example: <code>--placement-group default</code></p>
<p><code>-d, --user-data</code> <i>user_data</i></p>	<p>The user data to make available to the instances.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-d "My user data"</code></p>



Name	Description
<p><code>-g, --group <i>group</i></code></p>	<p>The ID of the security group. Note that you can't specify this option if you specify the <code>--subnet</code> option. Use the <code>--network-attachment</code> option to specify both a subnet and a security group.</p> <p>Type: String Default: User's default group. Required: No Example: <code>-g sg-1a2b3c4d</code></p>
<p><code>-k, --key <i>key_name</i></code></p>	<p>The name of the key pair.</p> <p>Type: String Default: None Required: No Example: <code>-k my-key-pair</code></p>
<p><code>-t, --instance-type <i>instance_type</i></code></p>	<p>The instance type.</p> <p>Type: String</p> <p>Valid values: <code>t1.micro   m1.small   m1.medium   m1.large   m1.xlarge   m3.xlarge   m3.2xlarge   c1.medium   c1.xlarge   c3.4xlarge   c3.8xlarge   cc1.4xlarge   cc2.8xlarge   cg1.4xlarge   cr1.8xlarge   g2.2xlarge   m2.xlarge   m2.2xlarge   m2.4xlarge</code>. For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Required: No Example: <code>-t m1.large</code></p>
<p><code>-z, --availability-zone <i>zone</i></code></p>	<p>The placement constraint (for example, a specific Availability Zone) for launching the instances.</p> <p>Specify whether you want all of the Spot Instances in all of your bids to be launched in a particular Availability Zone. Specifying this option requires Amazon EC2 to find capacity in the specified Availability Zone instead of letting Amazon EC2 pick the best Availability Zone available; this can potentially delay the fulfillment of your bid, or require a higher bid price.</p> <p>Type: String Default: Amazon EC2 selects an Availability Zone in the current region. Required: No Example: <code>-z us-east-1b</code></p>

Name	Description
<code>--kernel <i>kernel</i></code>	<p>The ID of the kernel to select.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--kernel aki-ba3adfd3</code></p>
<code>--ramdisk <i>ramdisk</i></code>	<p>The ID of the RAM disk to select.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--ramdisk ari-badbad00</code></p>

Name	Description
<p><code>-b, --block-device-mapping mapping</code></p>	<p>An entry for the block device mapping for the instance. You can specify multiple <code>--block-device-mapping</code> options in one call. For more information, see <a href="#">Block Device Mapping</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Each entry is passed in the form <code>&lt;devicename&gt;=&lt;blockdevice&gt;</code>. The <i>devicename</i> is the device name of the physical device on the instance to map, and <i>blockdevice</i> can be one of the following values:</p> <ul style="list-style-type: none"> <li><code>none</code> – Suppresses an existing mapping of the device from the AMI used to launch the instance. For example: <code>/dev/sdc=none</code>.</li> <li><code>ephemeral<i>n</i></code> – An instance store volume to be mapped to the device. Instance store volumes are numbered starting from 0. An instance type with 2 available instance store volumes can specify mappings for <code>ephemeral0</code> and <code>ephemeral1</code>. For example: <code>/dev/sdc=ephemeral0</code>.</li> <li><code>[snapshot-id]:[volume-size]:[delete-on-termination]:[volume-type][:iops]:[encrypted]</code> – An Amazon EBS volume to map to the device. <ul style="list-style-type: none"> <li><code>[snapshot-id]</code> To create a volume from a snapshot, specify the snapshot ID.</li> <li><code>[volume-size]</code> To create an empty Amazon EBS volume, omit the snapshot ID and specify a volume size instead. For example: <code>/dev/sdh=:20</code>.</li> <li><code>[delete-on-termination]</code> To prevent deletion on instance termination, specify <code>false</code>. The default for the root volume is <code>true</code> and the default for other volumes is <code>false</code>. For more information, see <a href="#">Preserving Amazon EBS Volumes on Instance Termination</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[volume-type]</code> The default volume type is <code>standard</code>. To create a General Purpose SSD volume, specify <code>gp2</code>. To create a Provisioned IOPS SSD volume, specify <code>io1</code>. If the volume type is <code>io1</code>, you must also specify the number of IOPS that the volume should support. For more information, see <a href="#">Amazon EBS Volume Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[iops]</code> The number of provisioned IOPS that the volume supports (this option is only valid with <code>io1</code> volume types).</li> <li><code>[encrypted]</code> To encrypt the volume, specify <code>true</code>. Volumes created from encrypted snapshots are automatically encrypted. An encrypted Amazon EBS volume must</li> </ul> </li> </ul>

Name	Description
	<p>be attached to an instance that supports Amazon EBS encryption. If your AMI uses an encrypted volume, you must launch it using a supported instance type. For more information, see <a href="#">Amazon EBS Encryption</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>-b "/dev/sdc=snap-7eb96d16:100:false:io1:500"</code></p> <p><b>Note</b> On Windows, the <i>mapping</i> argument must be enclosed in double quotes, as shown in the example.</p> <p><b>Note</b> For M3 instances, you must specify instance store volumes in the block device mapping for the instance. When you launch an M3 instance, we ignore any instance store volumes specified in the block device mapping for the AMI.</p>
<p><code>--monitor</code></p>	<p>Enables monitoring for the instance.</p> <p>Type: String Default: Disabled Required: No Example: <code>--monitor</code></p>
<p><code>--iam-profile <i>arn/name</i></code></p>	<p>The IAM instance profile to associate with the launched instances. IAM instance profiles enable you to manage permissions for applications running on Amazon EC2. This is either the Amazon Resource Name (ARN) of the instance profile (for example, <code>arn:aws:iam::111111111111:instance-profile/s3access</code>) or the name of the role (for example, <code>s3access</code>).</p> <p>Type: String Default: None Required: No Example: <code>--iam-profile arn:aws:iam::111111111111:instance-profile/s3access</code></p>

Name	Description
<p><code>-a, --network-attachment-attachment</code></p>	<p>[EC2-VPC] The network attachment for the instance.</p> <p>The format when using an existing network interface is as follows:</p> <p><i>eni_id:index</i></p> <p>The format when creating a network interface is as follows:</p> <p><i>:index[:subnet[:desc[:private_ip[:groups[:DOT[:count[:secondary_ips]]]]]]]</i></p> <p>Note that <i>groups</i> is a comma-separated list of security group IDs, <i>DOT</i> is either <code>true</code> or <code>false</code>, indicating whether to delete the interface on instance termination, <i>count</i> is the number of secondary IP addresses to assign, and <i>secondary_ips</i> is a list of secondary IP addresses. You can't specify both <i>count</i> and <i>secondary_ips</i>.</p> <p>Type: String Default: None Required: No</p> <p>Example 1: <code>-a eni-d2b24dbb:0</code> Example 2: <code>-a " :0:subnet-c9663da0:::sg-bab943d3"</code></p>
<p><code>--secondary-private-ip-address ip_address</code></p>	<p>Assigns the specified IP address as a secondary private IP address to the network interface or instance. This option can be used multiple times to assign multiple secondary IP addresses. This option is only available for instances running in a VPC. You can't specify this parameter when also specifying <code>--secondary-private-ip-address-count</code>.</p> <p>You can do one of the following:</p> <ul style="list-style-type: none"> <li>• Use the <code>--secondary-private-ip-address</code> option without a value and AWS will automatically assign a secondary private IP address within the subnet range.</li> <li>• Use the <code>--secondary-private-ip-address</code> option and provide a specific IP address that you want to assign.</li> </ul> <p><b>Note</b> On Windows clients, you must enclose IP addresses in quotes.</p> <p>Type: String Default: None Required: No</p> <p>Example: <code>--secondary-private-ip-address "10.0.2.18" --secondary-private-ip-address "10.0.2.28"</code></p>

Name	Description
<code>--secondary-private-ip-address-count</code> <i>count</i>	<p>The number of secondary IP addresses to assign to the network interface or instance. You can't specify this parameter when also specifying <code>--secondary-private-ip-address</code>. This option is only available for instances running in a VPC.</p> <p>Type: Integer Default: None Required: No Example: <code>--secondary-private-ip-address-count 2</code></p>
<code>--associate-public-ip-address</code> <i>Boolean</i>	<p>Indicates whether to assign an AWS public IP address to the instance that will be launched. Instances launched into a default subnet are assigned a public IP address by default. For information about instance IP addressing, see <a href="#">Amazon EC2 Instance IP Addressing</a>.</p> <p>Type: Boolean Default: If launching into a default subnet, the default value is <code>true</code>. If launching into a nondefault subnet, the default value is <code>false</code>. Required: No Example: <code>--associate-public-ip-address true</code></p>
<code>--ebs-optimized</code>	<p>Enables Amazon EBS optimization for the instance. This optimization provides dedicated throughput to Amazon EBS and an optimized configuration stack to provide optimal Amazon EBS I/O performance. This option isn't available on all instance types. Additional usage charges apply when using this option.</p> <p>Type: Boolean Default: Disabled Required: No Example: <code>--ebs-optimized</code></p>

## Common Options

Option	Description
<code>--region</code> <i>region</i>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
<code>-U, --url</code> <i>url</i>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information for each Spot Instance request:

The Spot Instance request information

- The SPOTINSTANCEREQUEST identifier
- The ID of the Spot instance request
- The Spot instance bid price
- The Spot instance type (`one-time` or `persistent`)
- The product description (`Linux/UNIX` or `Windows`)
- The state of the Spot instance request (`active`, `open`, `closed`, `cancelled`, `failed`)
- The date and time the request was created
- The date and time that the request is valid until
- The date and time the request will be held until
- The launch group
- The Availability Zone group
- The ID of the instance
- The ID of the image
- The instance type
- The key pair name
- Any security groups the request belongs to
- The Availability Zone the instance belongs to
- The kernel ID of the instance
- The RAM disk ID of the instance
- The monitoring status
- The ID of the subnet
- The Availability Zone the instance was launched to
- The IAM profile

Any Spot Instance faults



- The SPOTINSTANCEFAULT identifier
- The Spot instance fault code
- The Spot instance fault message

The Spot Instance status information

- The SPOTINSTANCESTATUS identifier
- The Spot instance status
- The date and time of the last update
- The Spot Instance status message

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command creates a Spot Instance request for three `m1.small` instances.

```
PROMPT> ec2-request-spot-instances ami-1a2b3c4d -p 0.04 --key my-key-pair --group default --instance-type m1.small -n 3 --type one-time
SPOTINSTANCEREQUEST sir-1a2b3c4d 0.040000 one-time Linux/UNIX open YYYY-MM-DDTHH:MM:SS-0800      ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d
monitoring-disabled
SPOTINSTANCESTATUS pending-evaluation YYYY-MM-DDTHH:MM:SS-0800 Your Spot request has been submitted for review, and is pending evaluation.
SPOTINSTANCEREQUEST sir-2a2b3c4d 0.040000 one-time Linux/UNIX open YYYY-MM-DDTHH:MM:SS-0800      ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d
monitoring-disabled
SPOTINSTANCESTATUS pending-evaluation YYYY-MM-DDTHH:MM:SS-0800 Your Spot request has been submitted for review, and is pending evaluation.
SPOTINSTANCEREQUEST sir-3a2b3c4d 0.040000 one-time Linux/UNIX open YYYY-MM-DDTHH:MM:SS-0800      ami-1a2b3c4d m1.small my-key-pair sg-1a2b3c4d
monitoring-disabled
SPOTINSTANCESTATUS pending-evaluation YYYY-MM-DDTHH:MM:SS-0800 Your Spot request has been submitted for review, and is pending evaluation.
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RequestSpotInstances](#)

## Related Commands

- [ec2-cancel-spot-instance-requests](#) (p. 97)
- [ec2-describe-spot-instance-requests](#) (p. 439)
- [ec2-describe-spot-price-history](#) (p. 446)

# ec2-reset-image-attribute

## Description

Resets an attribute of an AMI to its default value.

### Note

The productCodes attribute can't be reset.

The short version of this command is **ec2rimatt**.

### Tip

If you are using the AWS CLI, see [reset-image-attribute](#) instead.

## Syntax

```
ec2-reset-image-attribute ami_id [-l]
```

## Options

Name	Description
<i>ami_id</i>	The ID of the AMI. Type: String Default: None Required: Yes Example: ami-15a4417c
-l, --launch-permission	Resets the launch permissions of the AMI. Type: String Default: None Required: No Example: -l

## Common Options

Option	Description
--region <i>region</i>	The region. Overrides the default region, the region specified by the EC2_URL environment variable, and the URL specified by the -U option. Default: The region specified by the EC2_URL environment variable, or us-east-1 if EC2_URL isn't set.
-U, --url <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point.

Option	Description
	Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the AMI
- The action identifier (RESET)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command resets the `launchPermission` attribute for the specified AMI.

```
PROMPT> ec2-reset-image-attribute ami-1a2b3c4d -l
launchPermission ami-1a2b3c4d RESET
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Related Action

- [ResetImageAttribute](#)

## Related Commands

- [ec2-describe-image-attribute](#) (p. 325)
- [ec2-modify-image-attribute](#) (p. 581)

# ec2-reset-instance-attribute

## Description

Resets an attribute of an instance to its default value. To reset the kernel or RAM disk, the instance must be in a stopped state. To reset the `SourceDestCheck`, the instance can be either running or stopped.

The `SourceDestCheck` attribute controls whether source/destination checking is enabled. The default value is `true`, which means checking is enabled. This value must be `false` for a NAT instance to perform NAT. For more information, see [NAT Instances](#) in the *Amazon VPC User Guide*.

The short version of this command is **ec2rinatt**.

### Tip

If you are using the AWS CLI, see [reset-instance-attribute](#) instead.

## Syntax

```
ec2-reset-instance-attribute instance_id { --kernel kernel_id | --ramdisk  
ramdisk_id | --source-dest-check }
```

## Options

Name	Description
<i>instance_id</i>	The ID of the instance. Type: String Default: None Required: Yes Example: i-43a4412a
--kernel	Resets the ID of the kernel. Type: String Default: None Required: No Example: --kernel
--ramdisk	Resets the ID of the RAM disk. Type: String

Name	Description
	<p>Default: None</p> <p>Required: No</p> <p>Example: --ramdisk</p>
--source-dest-check	<p>Resets the <code>SourceDestCheck</code> flag to <code>true</code> (source/destination checking is enabled).</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: --source-dest-check</p>

## Common Options

Option	Description
--region <i>region</i>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>
-U, --url <i>url</i>	<p>The uniform resource locator (URL) of the Amazon EC2 web service entry point.</p> <p>Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.</p>
-O, --aws-access-key <i>aws_access_key_id</i>	<p>Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a>.</p> <p>Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option.</p> <p>Example: -O AKIAIOSFODNN7EXAMPLE</p>
-W, --aws-secret-key <i>aws_secret_access_key</i>	<p>Your secret access key.</p> <p>Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option.</p> <p>Example: -W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</p>
-T, --security-token <i>delegation_token</i>	<p>The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a>.</p> <p>Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).</p> <p>Example: -T AQoDYXdzEJr...&lt;remainder of security token&gt;</p>
--connection-timeout <i>timeout</i>	<p>The connection timeout, in seconds.</p> <p>Example: --connection-timeout 30</p>
--request-timeout <i>timeout</i>	<p>The request timeout, in seconds.</p> <p>Example: --request-timeout 45</p>
-H, --headers	<p>Includes column headers in the command output.</p>

Option	Description
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the instance
- The action identifier (`RESET`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command resets the `SourceDestCheck` attribute for the specified instance.

```
PROMPT> ec2-reset-instance-attribute i-10a64379 --source-desk-check  
sourceDestCheck i-10a64379 RESET
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ResetInstanceAttribute](#)

### Related Commands

- [ec2-describe-instance-attribute \(p. 338\)](#)
- [ec2-modify-instance-attribute \(p. 585\)](#)

# ec2-reset-network-interface-attribute

## Description

Resets a network interface attribute. You can specify only one attribute at a time.

The short version of this command is `ec2rnicatt`.

### Tip

If you are using the AWS CLI, see [reset-network-interface-attribute](#) instead.

## Syntax

```
ec2-reset-network-interface-attribute interface_id --source-dest-check  
Boolean
```



## Options

Name	Description
<code>interface_id</code>	The ID of the network interface. Type: String Default: None Required: Yes Example: <code>-n eni-b35da6da</code>
<code>--source-dest-check</code> <i>Boolean</i>	Resets the <code>SourceDestCheck</code> flag to <code>true</code> (source/destination checking is enabled). Type: String Required: Yes Example: <code>--source-dest-check</code>

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>

Option	Description
<code>--request-timeout</code> <code>timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <code>ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <code>ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the network interface
- The action identifier (`RESET`)

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command resets the `sourceDestCheck` attribute for the specified network interface.

```
PROMPT> ec2-reset-network-interface-attribute eni-b35da6da --source-dest-  
check  
sourceDestCheck eni-b35da6da      RESET
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

#### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ResetNetworkInterfaceAttribute](#)

### Related Commands

- [ec2-attach-network-interface](#) (p. 63)
- [ec2-create-network-interface](#) (p. 147)
- [ec2-delete-network-interface](#) (p. 234)
- [ec2-describe-network-interface-attribute](#) (p. 376)
- [ec2-describe-network-interfaces](#) (p. 379)
- [ec2-detach-network-interface](#) (p. 518)
- [ec2-modify-network-interface-attribute](#) (p. 591)

## ec2-reset-snapshot-attribute

### Description

Resets permission settings for the specified snapshot.

The short version of this command is **ec2rsnapatt**.

**Tip**

If you are using the AWS CLI, see [reset-snapshot-attribute](#) instead.

## Syntax

`ec2-reset-snapshot-attribute snapshot_id -c`

## Options

Name	Description
<code>--snapshot <i>snapshot</i></code>	The ID of the snapshot. Type: String Default: None Required: Yes Example: snap-1a2b3c4d
<code>-c, --create-volume-permission</code>	Resets the create volume permissions of the snapshot. Type: String Default: None Required: Yes Example: -c

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .

Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The attribute type identifier
- The ID of the snapshot
- The action identifier (`RESET`)

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command resets the permissions for the snapshot with the ID `snap-1a2b3c4d`, making it a private snapshot that can only be used by the account that created it.

```
PROMPT> ec2-reset-snapshot-attribute snap-1a2b3c4d -c  
createVolumePermission snap-1a2b3c4d RESET
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [ResetSnapshotAttribute](#)

### Related Commands

- [ec2-modify-snapshot-attribute](#) (p. 600)
- [ec2-describe-snapshot-attribute](#) (p. 426)
- [ec2-describe-snapshots](#) (p. 429)
- [ec2-create-snapshot](#) (p. 166)

## ec2-resume-import

### Description

Resumes the upload of a disk image associated with an import instance or import volume task ID. Amazon EC2 supports import of VMDK, RAW, and VHD disk images.

If the upload task stops without completing, use this command to resume this upload. The upload task resumes from where it left off.

For more information, see [\(Optional\) Resume an Upload \(p. 743\)](#).

The short version of this command is **ec2rim**.

### Syntax

```
ec2-resume-import -t task_id -o owner -w secret_key [-x days] [--user-threads threads] [--part-size partsize] [--dry-run] [--dont-verify-format] disk_image_filename
```

### Options

Name	Description
<i>disk_image_filename</i>	The local file name of the disk image. Type: String Default: None Required: Yes Example: WinSvr8-32-disk1.vmdk
-t, --task <i>task_id</i>	The conversion task ID for the upload. Type: String Default: None Required: Yes Example: -t import-i-ffvko9js
-o, --owner-akid <i>access_key_id</i>	The access key ID of the bucket owner. Type: String Default: None Required: Yes Example: AKIAIOSFODNN7EXAMPLE
-w, --owner-sak <i>secret_access_key</i>	The secret access key of the bucket owner. Type: String Default: None Required: Yes Example: wJalrXUtnFEMI/K7MDENG/ bPxRficYEXAMPLEKEY
-x, --expires <i>days</i>	The validity period for the signed Amazon S3 URLs that allow Amazon EC2 to access your file. Type: String Default: 30 days Required: No

Name	Description
	Example: <code>-x 10</code>
<code>--user-threads <i>threads</i></code>	The maximum number of threads to concurrently upload the file with. Type: String Default: 20 Required: No Example: <code>--user-threads 15</code>
<code>--part-size <i>partsize</i></code>	The size of each individual file part (in MB) that will be uploaded. The file will be split into multiple parts, with a maximum size as large as the <i>partsize</i> parameter. Type: String Default: 8 Required: No Example: <code>--part-size 3</code>
<code>--dry-run</code>	Does not upload the file, only validates that the disk image matches a known type. Type: None Default: None Required: No Example: <code>--dry-run</code>
<code>--dont-verify-format</code>	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Required: No Example: <code>--dont-verify-format</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>



Option	Description
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns the following information:

- The disk image size and format
- The converted volume size
- The Amazon EBS volume size
- The percentage of the upload completed

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command uploads the corresponding disk image of the Windows Server 2008 (32-bit) VM you want to migrate.

```
PROMPT> ec2-resume-import ./WinSvr8-32-disk1.vmdk -t import-i-ffvko9js -o
AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### Related Commands

- [ec2-cancel-conversion-task \(p. 87\)](#)
- [ec2-delete-disk-image \(p. 214\)](#)
- [ec2-describe-conversion-tasks \(p. 304\)](#)
- [ec2-import-instance \(p. 560\)](#)
- [ec2-import-volume \(p. 571\)](#)

## ec2-revoke

### Description

Removes a rule from a security group.

A security group is for use with instances either in the EC2-Classic platform or in a specific VPC. For more information, see [Amazon EC2 Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances* and [Security Groups for Your VPC](#) in the *Amazon VPC User Guide*.

The values that you specify in the revoke request (ports, and so on) must match the existing rule's values in order for the rule to be removed.

Each rule consists of the protocol (for example, TCP), plus either a CIDR range, or a source group (for ingress rules) or destination group (for egress rules). For TCP and UDP, you must also specify the destination port or port ranges. You can specify -1 to mean all ports (for example, port range 0-65535). For ICMP, you must also specify the ICMP type and code. You can use -1 for the type or code to mean all types or all codes.

Rule changes are propagated to affected instances as quickly as possible. However, a small delay might occur.

The short version of this command is **ec2revoke**.

#### Tip

If you are using the AWS CLI, see [revoke-security-group-egress](#) and [revoke-security-group-ingress](#) instead.

### Syntax

```
ec2-revoke group [--egress] [-P protocol] (-p port_range | -t icmp_type_code)
[-u source_or_dest_group_owner ...] [-o source_or_dest_group ...] [-s
source_or_dest_cidr ...] [-r prefix_list ...]
```

### Options

Name	Description
<i>group</i>	[EC2-Classic, default VPC] The name or ID of the security group.  [Nondefault VPC] The ID of the security group. Type: String Default: None Required: Yes Example: <i>webserv</i> (name), <i>sg-1a2b3c4d</i> (ID)
--egress	[EC2-VPC] Indicates that the rule is an egress rule (applies to traffic leaving the VPC). Default: If this option is not specified, the rule is an ingress rule (applies to traffic entering the VPC) Required: No
-P, --protocol <i>protocol</i>	The name or number of the IP protocol to revoke (see <a href="#">Protocol Numbers</a> ). Security groups for EC2-Classic can have rules only for TCP, UDP, and ICMP, whereas security

Name	Description
	<p>groups for EC2-VPC can have rules assigned to any protocol number.</p> <p>When you call <code>ec2-describe-group</code>, the protocol value returned is the number. Exception: For TCP, UDP, and ICMP, the value returned is the name (<code>tcp</code>, <code>udp</code>, or <code>icmp</code>).</p> <p>Type: String</p> <p>Valid values for EC2-Classic: <code>tcp</code>   <code>udp</code>   <code>icmp</code> or the corresponding protocol number (<code>6</code>   <code>17</code>   <code>1</code>).</p> <p>Default for EC2-Classic: TCP if the source CIDR is specified (or implied by default), or all three protocols (TCP, UDP, and ICMP) if the source group is specified (to ensure backwards compatibility).</p> <p>Valid values for EC2-VPC: <code>tcp</code>   <code>udp</code>   <code>icmp</code> or any protocol number. Use <code>all</code> to specify all protocols.</p> <p>Required: Required for EC2-VPC.</p> <p>Example: <code>-P udp</code></p>
<code>-p port_range</code>	<p>For TCP or UDP: The range of ports to revoke.</p> <p>Type: String</p> <p>Valid values: A single integer or a range (min-max). You can specify <code>-1</code> to mean all ports (for example, port range <code>0-65535</code>).</p> <p>Default: None</p> <p>Required: Required if specifying <code>tcp</code> or <code>udp</code> (or the equivalent number) for the protocol.</p> <p>Example: <code>-p 80-84</code></p>
<code>-t icmp_type_code</code>	<p>For ICMP: The ICMP type and code to revoke. This must be specified in the format <code>type:code</code> where both are integers. You can use <code>-1</code> for the type or code to mean all types or all codes.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: Required if specifying <code>icmp</code> (or the equivalent number) for the protocol.</p> <p>Example: <code>-t -1:-1</code></p>
<code>-u, source_or_dest_group_owner</code>	<p>The ID of the AWS account that owns the source security group (for ingress rules) or destination security group (for egress rules), if it's not the current AWS account.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>-u 111122223333</code></p>

Name	Description
<code>-o source_or_dest_group</code>	The source security group (for ingress rules), or destination security group (for egress rules). When revoking a rule for a security group for EC-VPC, you must specify the ID of the security group (for example, <code>sg-9d4e5f6g</code> ) instead of its name. You can't specify this option when specifying the <code>-s</code> option. Type: String Default: None Required: No Example: <code>-o headoffice</code>
<code>-s, --cidr source_or_dest_cidr</code>	The CIDR IP address range. You can't specify this option when specifying the <code>-o</code> option. Type: String Default: <code>0.0.0.0/0</code> Constraints: A valid CIDR IP address range. Required: No Example: <code>-s 205.192.8.45/24</code>
<code>-r, --prefix-list prefix_list</code>	[EC2-VPC] One or more prefix list IDs for an AWS service. Valid for egress rules only. Type: String Required: No Example: <code>-r pl-12345678</code>

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

A line containing the group information. Some of these fields may be blank:

- The GROUP identifier
- The ID of the security group
- The AWS account ID of the owner of the security group
- The name of the security group
- A description of the security group
- [EC2-VPC] The ID of the VPC the group belongs to

One of each of the following lines for each permission defined by the group:

- The PERMISSION identifier
- The AWS account ID of the owner of the security group
- The name of the security group granting permission
- The type of rule. Currently, only `ALLOWS` rules are supported
- The protocol to allow (for example, `tcp` and `udp`)
- The start of port range
- The end of port range
- FROM for an ingress rule or TO for an egress rule
- The source type (for ingress rules) or destination type (for egress rules)
- The source (for ingress rules) or destination (for egress rules)
- [USER only] The name of the source or destination entity
- [USER only] The ID of the security group
- Whether the rule is ingress rule or an egress rule

Amazon EC2 command line tools display errors on `stderr`.

## Examples

### Example

This example command revokes TCP port 80 access from the `205.192.0.0/16` address range for the security group named `websrv`.

```
PROMPT> ec2-revoke websrv -P tcp -p 80 -s 205.192.0.0/16
GROUP    websrv
```

```
PERMISSION webserv ALLOWS tcp 80 80 FROM CIDR 205.192.0.0/16 ingress
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RevokeSecurityGroupEgress](#)
- [RevokeSecurityGroupIngress](#)

### Related Commands

- [ec2-authorize \(p. 73\)](#)
- [ec2-create-group \(p. 119\)](#)
- [ec2-delete-group \(p. 218\)](#)
- [ec2-describe-group \(p. 320\)](#)

## ec2-run-instances

### Description

Launches the specified number of instances using an AMI for which you have permissions.

#### Tip

To ensure faster instance launches, break up large requests into smaller batches. For example, create five separate launch requests for 100 instances each instead of one launch request for 500 instances.

When you launch an instance, it enters the `pending` state. After the instance is ready for you, it enters the `running` state. To check the state of your instance, use the [ec2-describe-instances \(p. 349\)](#) command.

If you don't specify a security group when launching an instance, Amazon EC2 uses the default security group. For more information, see [Security Groups](#) in the *Amazon EC2 User Guide for Linux Instances*.

Linux instances have access to the public key of the key pair at boot. You can use this key to provide secure access to the instance. Amazon EC2 public images use this feature to provide secure access without passwords. For more information, see [Key Pairs](#) in the *Amazon EC2 User Guide for Linux Instances*.

You can provide optional user data when launching an instance. For more information, see [Instance Metadata](#) in the *Amazon EC2 User Guide for Linux Instances*.



### Warning

If any of the AMIs have a product code attached for which the user has not subscribed, `ec2-run-instances` fails.

T2 instance types can only be launched into a VPC. If you do not have a default VPC, or if you do not specify a subnet ID in the request, `RunInstances` fails.

For more information about troubleshooting, see [What To Do If An Instance Immediately Terminates](#), and [Troubleshooting Connecting to Your Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is `ec2run`.

### Tip

If you are using the AWS CLI, see [run-instances](#) instead.

## Syntax

```
ec2-run-instances ami_id [-n instance_count] [-k keypair] [-g group [-g group ...]] [-d user_data | -f filename] [--instance-type instance_type] [--availability-zone zone] [--placement-group group_name] [--tenancy tenancy] [--kernel kernel_id] [--ramdisk ramdisk_id] [--block-device-mapping mapping] [--monitor] [--subnet subnet_id] [--disable-api-termination] [--instance-initiated-shutdown-behavior behavior] [--private-ip-address ip_address] [--client-token token] [--secondary-private-ip-address ip_address | --secondary-private-ip-address-count count] [--network-attachment attachment] [--iam-profile arn | name] [--ebs-optimized] [--associate-public-ip-address Boolean]
```

## Options

Name	Description
<code>ami_id</code>	The ID of the AMI, which you can get by calling <code>ec2-describe-images</code> . Type: String Default: None Required: Yes Example: <code>ami-5da964c3</code>
<code>-n</code> , <code>--instance-count</code> <i>min</i> [- <i>max</i> ]	The number of instances to launch. If you specify a minimum that is more instances than Amazon EC2 can launch in the target Availability Zone, Amazon EC2 launches no instances. If you specify a range (min-max), Amazon EC2 tries to launch the maximum number in the target Availability Zone, but launches no fewer than the minimum number. Type: String Default: 1 Constraints: Between 1 and the maximum number you're allowed for the specified instance type. For more information about the default limits, and how to request an increase, see <a href="#">How many instances can I run in Amazon EC2</a> in the Amazon EC2 General FAQ. Required: No Example: <code>-n 5-10</code>

Name	Description
<p><code>-k, --key <i>keypair</i></code></p>	<p>The name of the key pair. You can create a key pair using <code>ec2-create-keypair</code> or <code>ec2-import-keypair</code>.</p> <p><b>Important</b> If you launch an instance without specifying a key pair, you can't connect to the instance.</p> <p>Type: String Default: None Required: No Example: <code>-k my-key-pair</code></p>
<p><code>-g, --group <i>group</i></code></p>	<p>One or more security groups. For a nondefault VPC, you must specify the security group by ID. For EC2-Classic or a default VPC, you can specify the security group by name or ID. You can create a security group using <code>ec2-create-group</code>.</p> <p>Type: String Default: Amazon EC2 uses the default security group Required: No Example: <code>-g my-security-group</code></p>
<p><code>-d, --user-data <i>user_data</i></code></p>	<p>The base64-encoded MIME user data for the instances.</p> <p>Type: String Default: None Required: No Example: <code>-d s3-bucket:my-logs</code></p>
<p><code>-f, --user-data-file <i>filename</i></code></p>	<p>The file name of the user data for the instances.</p> <p>Type: String Default: None Required: No Example: <code>-f user-data.txt</code></p>

Name	Description
<p><code>-t, --instance-type <i>instance_type</i></code></p>	<p>The instance type. For more information, see <a href="#">Instance Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String</p> <p>Valid values: <code>t2.nano   t2.micro   t2.small   t2.medium   t2.large   m4.large   m4.xlarge   m4.2xlarge   m4.4xlarge   m4.10xlarge   m4.16xlarge   m3.medium   m3.large   m3.xlarge   m3.2xlarge   m1.small   m1.medium   m1.large   m1.xlarge   c4.large   c4.xlarge   c4.2xlarge   c4.4xlarge   c4.8xlarge   c3.large   c3.xlarge   c3.2xlarge   c3.4xlarge   c3.8xlarge   c1.medium   c1.xlarge   cc2.8xlarge   r3.large   r3.xlarge   r3.2xlarge   r3.4xlarge   r3.8xlarge   m2.xlarge   m2.2xlarge   m2.4xlarge   cr1.8xlarge   i2.xlarge   i2.2xlarge   i2.4xlarge   i2.8xlarge   d2.xlarge   d2.2xlarge   d2.4xlarge   d2.8xlarge   hi1.4xlarge   hs1.8xlarge   t1.micro   g2.2xlarge   g2.8xlarge   cg1.4xlarge</code></p> <p>Default: <code>m1.small</code></p> <p>Required: No</p> <p>Example: <code>-t m1.large</code></p>
<p><code>-z, --availability-zone <i>zone</i></code></p>	<p>The Availability Zone for the instance.</p> <p>Type: String</p> <p>Default: Amazon EC2 selects the Availability Zone</p> <p>Required: No</p> <p>Example: <code>--availability-zone us-east-1a</code></p>
<p><code>--placement-group <i>group_name</i></code></p>	<p>The name of an existing placement group.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--placement-group my-placement-group</code></p>
<p><code>--tenancy <i>tenancy</i></code></p>	<p>The tenancy of the instance. An instance with a tenancy of <code>dedicated</code> runs on single-tenant hardware and can only be launched into a VPC.</p> <p>Type: String</p> <p>Valid values: <code>default   dedicated</code></p> <p>Default: <code>default</code></p> <p>Required: No</p> <p>Example: <code>--tenancy dedicated</code></p>

Name	Description
<code>--kernel <i>kernel_id</i></code>	<p>The ID of the kernel for the instance.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--kernel aki-ba3adfd3</code></p>
<code>--ramdisk <i>ramdisk_id</i></code>	<p>The ID of the RAM disk.</p> <p><b>Important</b> We recommend that you use PV-GRUB instead of kernels and RAM disks. For more information, see <a href="#">PV-GRUB</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>--ramdisk ari-abcdef01</code></p>

Name	Description
<p><code>-b, --block-device-mapping mapping</code></p>	<p>An entry for the block device mapping for the instance. You can specify multiple <code>--block-device-mapping</code> options in one call. For more information, see <a href="#">Block Device Mapping</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Each entry is passed in the form <code>&lt;devicename&gt;=&lt;blockdevice&gt;</code>. The <i>devicename</i> is the device name of the physical device on the instance to map, and <i>blockdevice</i> can be one of the following values:</p> <ul style="list-style-type: none"> <li><code>none</code> – Suppresses an existing mapping of the device from the AMI used to launch the instance. For example: <code>/dev/sdc=none</code>.</li> <li><code>ephemeral<i>n</i></code> – An instance store volume to be mapped to the device. Instance store volumes are numbered starting from 0. An instance type with 2 available instance store volumes can specify mappings for <code>ephemeral0</code> and <code>ephemeral1</code>. For example: <code>/dev/sdc=ephemeral0</code>.</li> <li><code>[snapshot-id]:[volume-size]:[delete-on-termination]:[volume-type][:iops]:[encrypted]</code> – An Amazon EBS volume to map to the device. <ul style="list-style-type: none"> <li><code>[snapshot-id]</code> To create a volume from a snapshot, specify the snapshot ID.</li> <li><code>[volume-size]</code> To create an empty Amazon EBS volume, omit the snapshot ID and specify a volume size instead. For example: <code>/dev/sdh=:20</code>.</li> <li><code>[delete-on-termination]</code> To prevent deletion on instance termination, specify <code>false</code>. The default for the root volume is <code>true</code> and the default for other volumes is <code>false</code>. For more information, see <a href="#">Preserving Amazon EBS Volumes on Instance Termination</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[volume-type]</code> The default volume type is <code>standard</code>. To create a General Purpose SSD volume, specify <code>gp2</code>. To create a Provisioned IOPS SSD volume, specify <code>io1</code>. If the volume type is <code>io1</code>, you must also specify the number of IOPS that the volume should support. For more information, see <a href="#">Amazon EBS Volume Types</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</li> <li><code>[iops]</code> The number of provisioned IOPS that the volume supports (this option is only valid with <code>io1</code> volume types).</li> <li><code>[encrypted]</code> To encrypt the volume, specify <code>true</code>. Volumes created from encrypted snapshots are automatically encrypted. An encrypted Amazon EBS volume must</li> </ul> </li> </ul>

Name	Description
	<p>be attached to an instance that supports Amazon EBS encryption. If your AMI uses an encrypted volume, you must launch it using a supported instance type. For more information, see <a href="#">Amazon EBS Encryption</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String Default: None Required: No Example: <code>-b "/dev/sdc=snap-7eb96d16:100:false:io1:500"</code></p> <p><b>Note</b> On Windows, the <i>mapping</i> argument must be enclosed in double quotes, as shown in the example.</p> <p><b>Note</b> For M3 instances, you must specify instance store volumes in the block device mapping for the instance. When you launch an M3 instance, we ignore any instance store volumes specified in the block device mapping for the AMI.</p>
<p><code>-m, --monitor</code></p>	<p>Enables monitoring for the instance. Type: Boolean Default: Disabled Required: No Example: <code>--monitor</code></p>
<p><code>-s, --subnet <i>subnet_id</i></code></p>	<p>[EC2-VPC] The ID of the subnet to launch the instance into. Type: String Default: None Required: No Example: <code>-s subnet-f3e6ab83</code></p>
<p><code>--disable-api-termination</code></p>	<p>If you enable this option, you can't terminate the instance using the Amazon EC2 console, CLI, or API; otherwise, you can. If you specify this option and then later want to be able to terminate the instance, you must first change the value of the <code>disableApiTermination</code> attribute to <code>false</code> using <code>ec2-modify-instance-attribute</code>. Alternatively, if you set <code>--instance-initiated-shutdown-behavior</code> to <code>terminate</code>, you can terminate the instance by running the shutdown command from the instance. Type: Boolean Default: Disabled Required: No Example: <code>--disable-api-termination</code></p>

Name	Description
<code>--instance-initiated-shutdown-behavior <i>behavior</i></code>	<p>Indicates whether an instance stops or terminates when you initiate shutdown from the instance (using the operating system command for system shutdown).</p> <p>Type: String</p> <p>Valid values: <code>stop</code>   <code>terminate</code></p> <p>Default: <code>stop</code></p> <p>Required: No</p> <p>Example: <code>--instance-initiated-shutdown-behavior stop</code></p>
<code>--private-ip-address <i>ip_address</i></code>	<p>[EC2-VPC] The primary private IP address. You must specify a value from the IP address range of the subnet.</p> <p>Type: String</p> <p>Default: We select an IP address from the IP address range of the subnet</p> <p>Required: No</p> <p>Example: <code>--private-ip-address 10.0.0.25</code></p>
<code>--client-token <i>token</i></code>	<p>Unique, case-sensitive identifier you provide to ensure idempotency of the request. For more information, see <a href="#">How to Ensure Idempotency</a> in the <i>Amazon EC2 User Guide for Linux Instances</i>.</p> <p>Type: String</p> <p>Default: None</p> <p>Constraints: Maximum 64 ASCII characters</p> <p>Required: No</p> <p>Example: <code>--client-token 550e8400-e29b-41d4-a716-446655440000</code></p>
<code>--secondary-private-ip-address <i>ip_address</i></code>	<p>[EC2-VPC] A secondary private IP address for the network interface or instance. You can specify this multiple times to assign multiple secondary IP addresses.</p> <p>You can do one of the following:</p> <ul style="list-style-type: none"> <li>• Use the <code>--secondary-private-ip-address</code> option without a value, and AWS will automatically assign a secondary private IP address within the subnet range.</li> <li>• Use the <code>--secondary-private-ip-address</code> option and provide a specific IP address that you want to assign. On Windows clients, you must enclose the IP addresses in quotes.</li> </ul> <p>You can't specify this parameter when also specifying <code>--secondary-private-ip-address-count</code>.</p> <p>Type: String</p> <p>Default: None</p> <p>Required: No</p> <p>Example: <code>--secondary-private-ip-address "10.0.2.18" --secondary-private-ip-address "10.0.2.28"</code></p>

Name	Description
<code>--secondary-private-ip-address-count</code> <i>count</i>	<p>[EC2-VPC] The number of secondary IP addresses to assign to the network interface or instance.</p> <p>You can't specify this parameter when also specifying <code>--secondary-private-ip-address</code>.</p> <p>Type: Integer Default: None Required: No Example: <code>--secondary-private-ip-address-count 2</code></p>



Name	Description
<p><code>-a, --network-attachment-attachment</code></p>	<p>The network attachment for the instance.</p> <p>The format when using an existing network interface is as follows:</p> <p><code>eni_id:index</code></p> <p>The format when creating a network interface is as follows:</p> <p><code>:index[:subnet[:desc[:IP[:groups[:DOT[:count[:SIPs]]]]]]]]</code></p> <ul style="list-style-type: none"> <li>• <code>index</code> - The device index.</li> <li>• <code>subnet</code> - The ID of the subnet.</li> <li>• <code>desc</code> - A description.</li> <li>• <code>IP</code> - The primary private IP address.</li> <li>• <code>groups</code> - A comma-separated list of security group IDs.</li> <li>• <code>DOT</code> - A Boolean value that indicates whether to delete the network interface on instance termination. You can specify <code>true</code> only when creating a network interface.</li> <li>• <code>count</code> - The count of secondary IP addresses. You can't specify both <code>count</code> and <code>SIPs</code>.</li> <li>• <code>SIPs</code> - A comma-separated list of secondary IP addresses.</li> </ul> <p>Type: String Default: None Required: No</p> <p>Example 1: Use an existing network interface for index 0 <code>-a eni-d2b24dbb:0</code></p> <p>Example 2: Use existing network interfaces for index 0 and index 1 <code>-a eni-d2b24dbb:0 -a eni-12345678:1</code></p> <p>Example 3: Create a network interface for index 0 and use an existing network interface for index 1 <code>-a :0:subnet-15ca247d:"My ENI" -a eni-12345678:1</code></p> <p>Example 4: Use an existing network interface for index 0 and create a network interface for index 1 <code>-a eni-12345678:0 -a :1:subnet-15ca247d:"My ENI":"10.0.0.10":sg-123456,sg-654321:false</code></p> <p>Example 5: Use an existing network interface for index 0 with specific secondary IP addresses <code>-a eni-12345678:0 -a :1:subnet-15ca247d:"My ENI":::::"10.0.0.18,10.0.0.25"</code></p>

Name	Description
<code>-p, --iam-profile arn/name</code>	<p>The IAM instance profile to associate with the instances. This is either the Amazon Resource Name (ARN) of the instance profile or the name of the role.</p> <p>Type: String Default: None Required: No Example 1: <code>-p arn:aws:iam::111111111111:instance-profile/s3access</code> Example 2: <code>-p s3access</code></p>
<code>--ebs-optimized</code>	<p>Enables Amazon EBS optimization for the instance. This optimization provides dedicated throughput to Amazon EBS and an optimized configuration stack to provide optimal Amazon EBS I/O performance. This option isn't available with all instance types. Additional usage charge apply when using this option.</p> <p>Type: Boolean Default: Disabled Required: No Example: <code>--ebs-optimized</code></p>
<code>--associate-public-ip-address</code> <i>Boolean</i>	<p>[EC2-VPCC] Indicates whether to assign a public IP address to an instance. The public IP address is assigned to a specific network interface. If set to true, the following rules apply:</p> <ul style="list-style-type: none"> <li>• Can only be assigned to a single network interface with the device index of 0. You can't assign a public IP address to a second network interface, and you can't assign a public IP address if you are launching with more than one network interface.</li> <li>• Can only be assigned to a new network interface, not an existing one.</li> </ul> <p>Type: Boolean Default: If launching into a default subnet, the default value is true. If launching into a nondefault subnet, the default value is false. Required: No Example: <code>--associate-public-ip-address true</code></p>

## Common Options

Option	Description
<code>--region region</code>	<p>The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option.</p> <p>Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.</p>

Option	Description
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (-K, --private-key) and X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns a table that contains the following rows of information for each instance. Some fields may be empty.

- The reservation information:
  - The RESERVATION identifier
  - The ID of the reservation
  - The AWS account ID of the instance owner
  - [EC2-Classic only] The names of the security groups the instance is associated with
- The instance information:
  - The INSTANCE identifier
  - The ID of the instance
  - The AMI ID of the image on which the instance is based
  - The public DNS name associated with the instance. This is only present for instances in the running state.
  - The private DNS name associated with the instance. This is only present for instances in the running state.
  - The state of the instance
  - The key name. If a key was associated with the instance at launch, its name will appear.
  - The AMI launch index
  - The product codes associated with the instance
  - The instance type
  - The instance launch time
  - The Availability Zone
  - The ID of the kernel
  - The ID of the RAM disk
  - The platform (*windows or empty*)

- The monitoring state
  - The public IP address
  - The private IP address
  - [EC2-VPC] The ID of the VPC
  - [EC2-VPC] The ID of the subnet
  - The type of root device (*ebs* or *instance-store*)
  - The instance lifecycle
  - The Spot instance request ID
  - The instance license
  - The placement group the cluster instance is in
  - The virtualization type (*paravirtual* or *hvm*)
  - The hypervisor type (*xen* or *ovm*)
  - The client token
  - The ID of each security group the instance is associated with
  - The tenancy of the instance (*default*, *dedicated*, or *host*)
  - Whether or not the instance is EBS optimized (*true* or *false*)
  - The [Amazon Resource Name](#) (ARN) of the IAM role
3. [EC2-VPC] The network interface information. There will be a set of the following for each network interface:
- a. The network interface information
    - The NIC identifier
    - The ID of the network interface
    - The ID of the subnet
    - The ID of the VPC
    - The owner ID
    - The network interface status
    - The private IP address of the network interface
    - The private DNS name
    - Whether or not source destination check is enabled (*true* or *false*)
  - b. The network interface attachment information
    - The NICATTACHMENT identifier
    - The attachment ID
    - The device index
    - The device status
    - The attachment timestamp
    - Whether or not the attachment is deleted on termination (*true* or *false*)
  - c. The network interface association information
    - The NICASSOCIATION identifier
    - The public IP address
    - The public IP address owner
    - The private IP address
  - d. The security group information
    - The GROUP identifier
- 
- API Version 2015-10-01
- The security group identifier
  - The security group name
- e. The private IP address information
- 706

- The PRIVATEIPADDRESS identifier
- The private IP address

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example 1

This example command launches an Amazon EBS-backed instance with a Provisioned IOPS SSD root volume instead of the default Magnetic volume by specifying `io1:iops`. You can also choose a General Purpose SSD volume as your root volume by specifying `gp2` in the block device mapping. You can change the root volume type by changing the default block device mapping of the AMI. To find the original block device mapping of an AMI, use the [ec2-describe-images](#) (p. 329) command with the image ID of the AMI you want to launch.

```
PROMPT> ec2-describe-images ami-978d91fe
IMAGE ami-978d91fe amazon/amzn-ami-hvm-2014.03.1.x86_64-ebs amazon available
public x86_64 machine ebs hvm xen
BLOCKDEVICEMAPPING EBS /dev/xvda snap-b011716d 8 true standard Not
Encrypted
```

In the above example, the root volume block device mapping is `/dev/xvda=snap-b011716d:8:true:standard`. To launch this AMI with a 100 GiB Provisioned IOPS SSD volume with 1,000 Provisioned IOPS SSD, use the following command.

```
PROMPT> ec2-run-instances ami-978d91fe -k my-key-pair --instance-type
m3.large -b "/dev/xvda=snap-b011716d:100:true:io1:1000"
```

To launch this AMI with a 100 GiB General Purpose SSD volume, use the following command.

```
PROMPT> ec2-run-instances ami-978d91fe -k my-key-pair --instance-type
m3.large -b "/dev/xvda=snap-b011716d:100:true:gp2"
```

### Example 2

This example command launches three instances using the AMI with the ID `ami-1a2b3c4d` AMI.

```
PROMPT> ec2-run-instances ami-1a2b3c4d -n 3 -k my-key-pair --availability-
zone us-east-1a
RESERVATION r-1a2b3c4d 111122223333
INSTANCE i-1a2b3c4d ami-1a2b3c4d pending my-key-pair 0 m1.small YYYY-MM-
DDTHH:MM:SS+0000 us-east-1a aki-1a2b3c4d monitoring-disabled ebs
paravirtual xen sg-1a2b3c4d default false
INSTANCE i-2a2b3c4d ami-1a2b3c4d pending my-key-pair 1 m1.small YYYY-MM-
DDTHH:MM:SS+0000 us-east-1a aki-1a2b3c4d monitoring-disabled ebs
paravirtual xen sg-1a2b3c4d default false
INSTANCE i-3a2b3c4d ami-1a2b3c4d pending my-key-pair 2 m1.small YYYY-MM-
DDTHH:MM:SS+0000 us-east-1a aki-1a2b3c4d monitoring-disabled ebs
paravirtual xen sg-1a2b3c4d default false
```

## Example 3

This example command launches an Amazon EBS-based Windows image (with the ID `ami-2879f118`) and provides a block device mapping that mounts a public snapshot with the ID `snap-1a2b3c4d`.

```
PROMPT> ec2-run-instances ami-2879f118 -k my-key-pair -b "/dev/  
sdb=snap-1a2b3c4d::false"  
RESERVATION r-1a2b3c4d 111122223333  
INSTANCE i-1a2b3c4d ami-84db39ed pending my-key-pair 0 m1.small YYYY-MM-  
DDTHH:MM:SS+0000 us-east-1c windows monitoring-disabled ebs hvm xen  
sg-1a2b3c4d default false
```

## Example 4

This example command launches an instance with a primary IP address of `10.0.0.146` and two secondary private IP addresses of `10.0.0.148` and of `10.0.0.150` in the subnet with the ID `subnet-1a2b3c4d`.

```
PROMPT> ec2-run-instances ami-1a2b3c4d -k my-key-pair -s subnet-1a2b3c4d -  
t c1.medium --private-ip-address 10.0.0.146 --secondary-private-ip-address  
10.0.0.148 --secondary-private-ip-address 10.0.0.150  
RESERVATION r-1a2b3c4d 111122223333  
INSTANCE i-1a2b3c4d ami-1a2b3c4d pending my-key-pair 0 c1.medium YYYY-  
MM-DDTHH:MM:SS+0000 us-west-2a windows monitoring-disabled 10.0.0.146  
vpc-1a2b3c4d subnet-1a2b3c4d ebs hvm xen sg-1a2b3c4d dedicated false  
NIC eni-1a2b3c4d subnet-1a2b3c4d vpc-1a2b3c4d 111122223333 in-use 10.0.1.146  
true  
NICATTACHMENT eni-attach-1a2b3c4d 0 attaching YYYY-MM-DDTHH:MM:SS+0000 true  
GROUP sg-1a2b3c4d default  
PRIVATEIPADDRESS 10.0.0.146  
PRIVATEIPADDRESS 10.0.0.148  
PRIVATEIPADDRESS 10.0.0.150
```

## Example 5

This example command launches a Dedicated Instance into the specified subnet.

```
PROMPT> ec2-run-instances ami-1a2b3c4d -k my-key-pair --tenancy dedicated -s  
subnet-1a2b3c4d
```

## Example 6

This example command launches an instance into a nondefault subnet, and requests a public IP address. The public IP address is assigned to the `eth0` network interface.

```
PROMPT> ec2-run-instances ami-1a2b3c4d -k my-key-pair -s subnet-1a2b3c4d --  
associate-public-ip-address true
```

## Example 7

This example command launches an `m1.large` instance with a block device mapping. There are two instance store volumes mapped to `/dev/sdc` and `/dev/sdd`, and a 100 GiB Amazon EBS volume mapped to `/dev/sdf`.

```
PROMPT> ec2-run-instances ami-1a2b3c4d -k my-key-pair --instance-type  
m1.large -b "/dev/sdc=ephemeral10" -b "/dev/sdd=ephemeral11" -b "/dev/  
sdf=:100:0"
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [RunInstances](#)

### Related Commands

- [ec2-describe-instances \(p. 349\)](#)
- [ec2-describe-images \(p. 329\)](#)
- [ec2-stop-instances \(p. 713\)](#)
- [ec2-start-instances \(p. 709\)](#)
- [ec2-terminate-instances \(p. 716\)](#)
- [ec2-authorize \(p. 73\)](#)
- [ec2-revoke \(p. 688\)](#)
- [ec2-create-keypair \(p. 136\)](#)
- [ec2-create-group \(p. 119\)](#)
- [ec2-describe-group \(p. 320\)](#)

## ec2-start-instances

### Description

Starts an instance that uses an Amazon EBS volume as its root device.

Instances that use Amazon EBS volumes as their root devices can be quickly stopped and started. When an instance is stopped, the compute resources are released and you are not billed for hourly instance usage. However, your root partition Amazon EBS volume remains, continues to persist your data, and you are charged for Amazon EBS volume usage. You can restart your instance at any time. Each time you transition an instance from stopped to started, we charge a full instance hour, even if transitions happen multiple times within a single hour.

Before stopping an instance, make sure it is in a state from which it can be restarted. Stopping an instance does not preserve data stored in RAM.

Performing this operation on an instance that uses an instance store as its root device returns an error.



You can't start or stop Spot Instances.

For more information, see [Instance Lifecycle](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2start**.

**Tip**

If you are using the AWS CLI, see [start-instances](#) instead.

## Syntax

**ec2-start-instances** *instance\_id* [*instance\_id...*]

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-43a4412a

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).

Option	Description
	Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- INSTANCE identifier
- The ID of the instance
- The previous state of the instance
- The new state of the instance

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command starts the specified instance.

```
PROMPT> ec2-start-instances i-10a64379  
INSTANCE i-10a64379 stopped pending
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [StartInstances](#)

### Related Commands

- [ec2-describe-instances \(p. 349\)](#)
- [ec2-run-instances \(p. 693\)](#)
- [ec2-stop-instances \(p. 713\)](#)
- [ec2-terminate-instances \(p. 716\)](#)

# ec2-stop-instances

## Description

Stops an instance that uses an Amazon EBS volume as its root device. Each time you transition an instance from stopped to started, we charge a full instance hour, even if transitions happen multiple times within a single hour.

You can't start or stop Spot Instances.

Instances that use Amazon EBS volumes as their root devices can be quickly stopped and started. When an instance is stopped, the compute resources are released and you are not billed for hourly instance usage. However, your root partition Amazon EBS volume remains, continues to persist your data, and you are charged for Amazon EBS volume usage. You can restart your instance at any time.

Before stopping an instance, make sure it is in a state from which it can be restarted. Stopping an instance does not preserve data stored in RAM.

Performing this operation on an instance that uses an instance store as its root device returns an error.

You can stop, start, and terminate Amazon EBS-backed instances. You can only terminate instance store-backed instances. What happens to an instance differs if you stop it or terminate it. For example, when you stop an instance, its root device and any other devices attached to the instance persist. When you terminate an instance, any attached EBS volumes with the `DeleteOnTermination` block device mapping parameter set to `true` are automatically deleted. For more information about the differences between stopping and terminating instances, see [Instance Lifecycle](#) in the *Amazon EC2 User Guide for Linux Instances*.

For more information about troubleshooting, see [Troubleshooting Stopping Your Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2stop**.

### Tip

If you are using the AWS CLI, see [stop-instances](#) instead.

## Syntax

```
ec2-stop-instances instance_id [instance_id...] [--force]
```

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-43a4412a
-f, --force	Forces the instances to stop. The instances will not have an opportunity to flush file system caches or file system metadata. If you use this option, you must perform file system check and repair procedures. This option is not recommended for Windows instances.

Name	Description
	Type: Boolean Default: None Required: No Example: None

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.

Option	Description
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key <i>ec2_private_key</i></code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert <i>ec2_cert</i></code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The INSTANCE identifier
- The ID of the instance
- The previous state of the instance
- The new state of the instance

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command stops the specified instance.

```
PROMPT> ec2-stop-instances i-10a64379
INSTANCE i-10a64379 running stopping
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\)](#) (p. 3)
- [Setting Up the CLI Tools \(Windows\)](#) (p. 10)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [StopInstances](#)

## Related Commands

- [ec2-describe-instances](#) (p. 349)
- [ec2-run-instances](#) (p. 693)
- [ec2-start-instances](#) (p. 709)
- [ec2-terminate-instances](#) (p. 716)

## ec2-terminate-instances

### Description

Shuts down one or more instances. This operation is idempotent; if you terminate an instance more than once, each call succeeds.

Terminated instances remain visible after termination (approximately one hour).

#### Note

By default, Amazon EC2 deletes the Amazon EBS root device volume at instance termination. Additional volumes that were attached when the instance launched and any volumes that were attached after instance launch persist. For more information, see [Preserving Amazon EBS Volumes on Instance Termination](#) in the *Amazon EC2 User Guide for Linux Instances*.

You can stop, start, and terminate Amazon EBS-backed instances. You can only terminate instance store-backed instances. What happens to an instance differs if you stop it or terminate it. For example, when you stop an instance, its root device and any other devices attached to the instance persist. When you terminate an instance, any attached EBS volumes with the `DeleteOnTermination` block

device mapping parameter set to `true` are automatically deleted. For more information about the differences between stopping and terminating instances, see [Instance Lifecycle](#) in the *Amazon EC2 User Guide for Linux Instances*.

For more information about troubleshooting, see [Troubleshooting Terminating Your Instance](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2kill**.

**Tip**

If you are using the AWS CLI, see [terminate-instances](#) instead.

## Syntax

`ec2-terminate-instances` *instance\_id* [*instance\_id* ...]

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-43a4412a

## Common Options

Option	Description
<code>--region</code> <i>region</i>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url</code> <i>url</i>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key</code> <i>aws_access_key_id</i>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key</code> <i>aws_secret_access_key</i>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token</code> <i>delegation_token</i>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> .



Option	Description
	Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout</code> <i>timeout</i>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout</code> <i>timeout</i>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key</code> <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert</code> <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable.

Option	Description
	Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The INSTANCE identifier
- The instance ID of the instance being terminated
- The state of the instance prior to being terminated
- The new state of the instance

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command terminates the specified instance.

```
PROMPT> ec2-terminate-instances i-1a2b3c4d  
INSTANCE i-1a2b3c4d running shutting-down
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [TerminateInstances](#)

### Related Commands

- [ec2-describe-instances \(p. 349\)](#)
- [ec2-run-instances \(p. 693\)](#)

# ec2-unassign-private-ip-addresses

## Description

Unassigns one or more secondary private IP addresses from a network interface.

The short version of this command is **ec2upip**.

### Tip

If you are using the AWS CLI, see [unassign-private-ip-addresses](#) instead.

## Syntax

```
ec2-unassign-private-addresses --network-interface interface_id --secondary-private-ip-address ip_address [--secondary-private-ip-address ip_address ...]
```

## Options

Name	Description
<code>--n, --network-interface <i>interface_id</i></code>	The ID of the network interface. Type: String Default: None Required: Yes Example: <code>-n eni-bc7299d4</code>
<code>--secondary-private-ip-address <i>ip_address</i></code>	The secondary private IP addresses that you want to unassign from the network interface. You can specify this option multiple times to unassign more than one IP address. Type: String Default: None Required: Yes Example: <code>--secondary-private-ip-address 10.0.2.18 --secondary-private-ip-address 10.0.2.28</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> .

Option	Description
	Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AqoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

The command returns a true value if the operation succeeds or an error if the operation fails.

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command unassigns the two secondary private IP addresses from the specified network interface.

```
PROMPT> ec2-unassign-private-ip-addresses --network-interface eni-c08a35a9
--secondary-private-ip-address 10.0.0.118 --secondary-private-ip-
address 10.0.0.119
RETURN true
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [UnassignPrivateIpAddresses](#)

### Related Commands

- [ec2-assign-private-ip-addresses \(p. 41\)](#)

# ec2-unmonitor-instances

## Description

Disables monitoring for a running instance. For more information, see [Monitoring Your Instances and Volumes](#) in the *Amazon EC2 User Guide for Linux Instances*.

The short version of this command is **ec2umin**.

### Tip

If you are using the AWS CLI, see [unmonitor-instances](#) instead.

## Syntax

**ec2-unmonitor-instances** *instance\_id* [*instance\_id*...]

## Options

Name	Description
<i>instance_id</i>	One or more instance IDs. Type: String Default: None Required: Yes Example: i-43a4412a

## Common Options

Option	Description
<code>--region region</code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url url</code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

Option	Description
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command returns a table that contains the following information:

- The ID of the instance.
- The monitoring state

Amazon EC2 command line tools display errors on stderr.

## Examples

### Example

This example command disables monitoring for the specified instances.

```
PROMPT> ec2-unmonitor-instances i-43a4412a i-23a3397d  
i-43a4412a monitoring-disabling  
i-23a3397d monitoring-disabling
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### IAM Policies

You can create an IAM policy to grant users permission to use this command. For more information, see [IAM Policies for Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

### Related Action

- [UnmonitorInstances](#)

### Related Commands

- [ec2-monitor-instances \(p. 616\)](#)
- [ec2-run-instances \(p. 693\)](#)



## ec2-upload-disk-image

### Description

Deprecated. Instead, use the `ec2-import-instance` and `ec2-import-volume` commands (included in the command line tools as of 2011-09-15) to create the import task and upload the image to Amazon EC2. For more information, see [Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2](#) in the *Amazon EC2 User Guide for Linux Instances*.

Uploads the disk image associated with an import instance or an import volume task ID. Amazon EC2 supports import of VMDK, RAW, and VHD disk images.

If the upload task doesn't complete, use `ec2-resume-import` to resume the import from where it was interrupted.

The short version of this command is **ec2udi**.

### Syntax

```
ec2-upload-disk-image -t task_id -o owner -w secret_key [-x days] [--user-threads threads] [--part-size partsize] [--dry-run] [--dont-verify-format] disk_image
```

### Options

Name	Description
<i>disk_image</i>	The local file name of the disk image that you want to upload. Type: String Default: None Required: Yes Example: WinSvr8-32-disk1.vmdk
-t, --task <i>task_id</i>	The conversion task ID for the upload. Type: String Default: None Required: Yes Example: -t import-i-ffvko9js
-o, --owner-akid <i>access_key_id</i>	The access key ID of the bucket owner. Type: String Default: None Required: Yes Example: AKIAIOSFODNN7EXAMPLE
-w, --owner-sak <i>secret_access_key</i>	The secret access key of the bucket owner. Type: String Default: None Required: Yes Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY

Name	Description
<code>-x, --expires <i>days</i></code>	The validity period for the signed Amazon S3 URLs that allow Amazon EC2 to access your file. Type: String Default: 30 days Required: No Example: <code>-x 10</code>
<code>--user-threads <i>threads</i></code>	The maximum number of threads to concurrently upload the file with. Type: String Default: 20 Required: No Example: <code>--user-threads 15</code>
<code>--part-size <i>partsize</i></code>	The size of each individual file part (in MB) that will be uploaded. The file will be split into multiple parts at most as large as the <i>partsize</i> parameter. Type: String Default: 8 Required: No Example: <code>--part-size 3</code>
<code>--dry-run</code>	Does not upload the file, only validates that the disk image matches a known type. Type: None Default: None Required: No Example: <code>--dry-run</code>
<code>--dont-verify-format</code>	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Required: No Example: <code>--dont-verify-format</code>

## Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.

Option	Description
<code>-O, --aws-access-key aws_access_key_id</code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key aws_secret_access_key</code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/ bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and

X.509 certificate (-C, --cert) options are not supported. Use your access key ID (-O, --aws-access-key) and secret access key (-W, --aws-secret-key) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
-K, --private-key <i>ec2_private_key</i>	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem
-C, --cert <i>ec2_cert</i>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem

## Output

This command returns the following information:

- The disk image size and format
- The converted volume size
- The Amazon EBS volume size
- The percentage of the upload completed

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command uploads the corresponding disk image of the Windows Server 2008 (32-bit) VM you want to migrate.

```
PROMPT> ec2-upload-disk-image ./WinSvr8-32-disk1.vmdk -t import-i-ffvko9js -o
AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFicYEXAMPLEKEY
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

### Related Commands

- [ec2-delete-disk-image \(p. 214\)](#)
- [ec2-import-instance \(p. 560\)](#)

- [ec2-import-volume](#) (p. 571)
- [ec2-resume-import](#) (p. 684)
- [ec2-cancel-conversion-task](#) (p. 87)
- [ec2-describe-conversion-tasks](#) (p. 304)

## ec2-version

### Description

Describes the build and API versions of the CLI tools.

The short version of this command is **ec2ver**.

### Syntax

**ec2-version**

### Options

This command has no options.

### Common Options

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>
<code>-T, --security-token <i>delegation_token</i></code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set).

Option	Description
	Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>
<code>-C, --cert ec2_cert</code>	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_CERT</code> environment variable. Example: <code>-C cert-HKZYKTAIG2ECMXIYIBH3HXV4ZBEXAMPLE.pem</code>

## Output

This command displays the build and API version information.

Amazon EC2 command line tools display errors on stderr.

## Example

### Example

This example command displays the version information for the version of the CLI tools that you're using.

```
PROMPT> ec2-version
1.7.3.0 2014-10-01
```

## Related Topics

### Setting Up

- [Setting Up the CLI Tools \(Linux and Mac OS X\) \(p. 3\)](#)
- [Setting Up the CLI Tools \(Windows\) \(p. 10\)](#)

## Common Options for CLI Tools

Most Amazon EC2 commands support the options described in the following table.

Option	Description
<code>--region <i>region</i></code>	The region. Overrides the default region, the region specified by the <code>EC2_URL</code> environment variable, and the URL specified by the <code>-U</code> option. Default: The region specified by the <code>EC2_URL</code> environment variable, or <code>us-east-1</code> if <code>EC2_URL</code> isn't set.
<code>-U, --url <i>url</i></code>	The uniform resource locator (URL) of the Amazon EC2 web service entry point. Default: The endpoint specified by the <code>EC2_URL</code> environment variable, or <code>https://ec2.amazonaws.com</code> if <code>EC2_URL</code> isn't set.
<code>-O, --aws-access-key <i>aws_access_key_id</i></code>	Your access key ID. For more information, see <a href="#">Tell the Tools Who You Are</a> . Default: The value of the <code>AWS_ACCESS_KEY</code> environment variable. If <code>AWS_ACCESS_KEY</code> isn't set, you must specify this option. Example: <code>-O AKIAIOSFODNN7EXAMPLE</code>
<code>-W, --aws-secret-key <i>aws_secret_access_key</i></code>	Your secret access key. Default: The value of the <code>AWS_SECRET_KEY</code> environment variable. If <code>AWS_SECRET_KEY</code> isn't set, you must specify this option. Example: <code>-W wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY</code>

Option	Description
<code>-T, --security-token delegation_token</code>	The delegation token to pass along to the AWS request. This is only required when you are using temporary security credentials. For more information, see <a href="#">Using Temporary Security Credentials</a> . Default: The value of the <code>AWS_DELEGATION_TOKEN</code> environment variable (if set). Example: <code>-T AQoDYXdzEJr...&lt;remainder of security token&gt;</code>
<code>--connection-timeout timeout</code>	The connection timeout, in seconds. Example: <code>--connection-timeout 30</code>
<code>--request-timeout timeout</code>	The request timeout, in seconds. Example: <code>--request-timeout 45</code>
<code>-H, --headers</code>	Includes column headers in the command output.
<code>--show-empty-fields</code>	Shows empty columns as <code>(nil)</code> .
<code>--hide-tags</code>	Omits tags for tagged resources.
<code>--debug</code>	Displays internal debugging information. This can assist us when helping you troubleshooting problems.
<code>-D, --auth-dry-run</code>	Checks whether you have the required permissions for the command, without actually running the command. If you have the required permissions, the command returns <code>DryRunOperation</code> ; otherwise, it returns <code>UnauthorizedOperation</code> .
<code>-v, --verbose</code>	Displays verbose output, including the API request and response on the command line. This is useful if you are building tools to talk directly to the Query API.
<code>-</code>	Reads arguments from standard input. This is useful when piping the output from one command to the input of another. Example: <code>ec2-describe-instances   grep stopped   cut -f 2   ec2-start-instances -</code>
<code>-?, --help, -h</code>	Displays usage information for the command.

## Deprecated Options

We have deprecated the SOAP API for Amazon EC2. For more information, see [SOAP Requests](#). From version 1.6.14.0 onwards of the Amazon EC2 CLI tools, the private key (`-K, --private-key`) and X.509 certificate (`-C, --cert`) options are not supported. Use your access key ID (`-O, --aws-access-key`) and secret access key (`-W, --aws-secret-key`) instead. For more information, see [Setting Up the Amazon EC2 CLI](#).

Option	Description
<code>-K, --private-key ec2_private_key</code>	The private key to use when constructing requests to Amazon EC2. Default: The value of the <code>EC2_PRIVATE_KEY</code> environment variable. Example: <code>-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code>



Option	Description
<code>-C, --cert <i>ec2_cert</i></code>	<p>The X.509 certificate to use when constructing requests to Amazon EC2.</p> <p>Default: The value of the <code>EC2_CERT</code> environment variable.</p> <p>Example: <code>-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem</code></p>

# Importing a Virtual Machine Using the Amazon EC2 CLI

---

You can use the Amazon EC2 VM Import/Export commands to import virtual machine (VM) images from your virtualization environment into Amazon EC2 as instances. Later, you can export the VM images back to your virtualization environment. With VM Import/Export, you can leverage your existing investments in the VMs that you have built to meet your IT security, configuration management, and compliance requirements by bringing them into Amazon EC2.

For more information, see [VM Import/Export](#) and the [VM Import/Export FAQ](#).

## Contents

- [Prerequisites \(p. 735\)](#)
- [Limitations \(p. 736\)](#)
- [Importing a VM to Amazon EC2 \(p. 737\)](#)
- [Exporting an Instance from Amazon EC2 \(p. 744\)](#)
- [Importing Disks to Amazon EBS \(p. 747\)](#)

## Prerequisites

You can import or export a VM using the Amazon EC2 command line tools. If you have not already installed them, see [Setting Up the Amazon EC2 CLI \(p. 3\)](#).

Before you begin, you must be aware of the operating systems and image formats that VM Import/Export supports, and understand the limitations on importing instances and volumes.

## Operating Systems

The following operating systems can be imported to and exported from Amazon EC2.

### Windows (32- and 64-bit)

- Microsoft Windows Server 2003 (Standard, Datacenter, Enterprise) with Service Pack 1 (SP1) or later (32- and 64-bit)
- Microsoft Windows Server 2003 R2 (Standard, Datacenter, Enterprise) (32- and 64-bit)
- Microsoft Windows Server 2008 (Standard, Datacenter, Enterprise) (32- and 64-bit)

- Microsoft Windows Server 2008 R2 (Standard, Datacenter, Enterprise) (64-bit only)
- Microsoft Windows Server 2012 (Standard, Datacenter) (64-bit only)
- Microsoft Windows Server 2012 R2 (Standard, Datacenter) (64-bit only)
- Microsoft Windows 7 (Professional, Enterprise, Ultimate) US English (32- and 64-bit)
- Microsoft Windows 8 (Professional, Enterprise) (US English) (32- and 64-bit)
- Microsoft Windows 8.1 (Professional, Enterprise) (US English) (64-bit only)
- Microsoft Windows 10 (Home, Professional, Enterprise, Education) (US English) (64-bit only)

#### **Linux/Unix (64-bit)**

- Ubuntu 12.04, 12.10, 13.04, 13.10, 14.04, 14.10, 15.04
- Red Hat Enterprise Linux (RHEL) 5.1-5.11, 6.1-6.6, 7.0-7.1 (6.0 lacks required drivers)
- SUSE Linux Enterprise Server 11 Service Pack 1 - 2.6.32.12-0.7, Service Pack 2 - 3.0.13-0.27, Service Pack 3 - 3.0.76-0.11, 3.0.101-0.8, and 3.0.101-0.15, Service Pack 4 - 3.0.101-63
- SUSE Linux Enterprise Server 12 3.12.28-4, Service Pack 1 - 3.12.49-11
- CentOS 5.1-5.11, 6.1-6.6, 7.0-7.2 (6.0 lacks required drivers)
- Debian 6.0.0-6.0.8, 7.0.0-7.8.0, 8.0.0
- Oracle Linux 6.1-6.6, 7.0-7.1
- Fedora Server 19-21

## Volume Types and File Systems

VM Import/Export supports importing Windows and Linux instances with the following file systems:

#### **Windows (32- and 64-bit)**

MBR-partitioned volumes that are formatted using the NTFS file system. GUID Partition Table (GPT) partitioned volumes are not supported.

#### **Linux/Unix (64-bit)**

MBR-partitioned volumes that are formatted using the ext2, ext3, ext4, Btrfs, JFS, or XFS file system. GUID Partition Table (GPT) partitioned volumes are not supported.

## Amazon S3 Buckets

VM Import/Export requires an Amazon S3 bucket to store your disk images, in the region where you want to import your VMs. For more information, see [Working with Buckets](#) in the *Amazon Simple Storage Service Console User Guide*.

## Limitations

Importing instances and volumes is subject to the following limitations:

- Make sure your VM uses only a single disk. Importing a VM with more than one disk is not supported. For Linux VMs, `/boot` and `/` can be located in different partitions, but they need to be on the same disk.

We suggest that you import the VM with only the boot volume, and import any additional disks using the `ec2-import-volume` (p. 571) command. After the import instance task is complete, use the `ec2-attach-volume` (p. 66) command to associate the additional volumes with your instance.

- You can have up to five import tasks per region in progress at the same time. To request an increase to this limit, contact AWS Support. Tasks must complete within 7 days of the start date.
- Imported VMs create EC2 instances that use Hardware Virtual Machine (HVM) virtualization. Creating instances that use Paravirtual (PV) virtualization using VM Import is not supported. Linux PVHVM drivers are supported within imported VMs.
- Imported Red Hat Enterprise Linux (RHEL) VMs must use Cloud Access (BYOL) licenses. For more information, see [Red Hat Cloud Access](#) on the Red Hat website.
- Imported Linux VMs must use 64-bit images. Importing 32-bit Linux images is not supported.
- Imported Linux VMs should use default kernels for best results. VMs that use custom Linux kernels might not import successfully.
- Typically, you import a compressed version of a disk image; the expanded disk image can't exceed 1 TiB.
- Virtual Hard Disk (VHD) images must be dynamic.
- Make sure that you have at least 250 MB of available disk space for installing drivers and other software on any VM you want to import into an Amazon EC2 instance running Microsoft Windows or Linux.
- Imported VMs automatically have access to the Amazon EC2 instance store, which is temporary disk storage located on disks that are physically attached to the host computer. You can't disable this during import.
- Multiple network interfaces are not currently supported. When converted and imported, your instance will have a single virtual NIC using DHCP for address assignment.
- Internet Protocol version 6 (IPv6) IP addresses are not supported.
- For vCenter 4.0 and vSphere 4.0 users, remove any attached CD-ROM images or ISOs from the virtual machine.
- VM Import/Export does not install the single root I/O virtualization (SR-IOV) drivers, except with imports of Microsoft Windows Server 2012 R2 VMs. These drivers are not required unless you plan to use enhanced networking, which provides higher performance (packets per second), lower latency, and lower jitter. For Microsoft Windows Server 2012 R2 VMs, SR-IOV drivers are automatically installed as a part of the import process.
- You can't import Microsoft Windows VMs that use the bring your own license (BYOL) model.

## Importing a VM to Amazon EC2

To import your VM to Amazon EC2 as an instance, you must first export it from the virtualization environment, and then import it to Amazon EC2.

If you prefer to use the AWS CLI, you must import the VM as an Amazon Machine Image (AMI) instead. For more information, see [Importing a VM into Amazon EC2 as an Image](#) in the *Amazon EC2 User Guide for Linux Instances*.

If you're importing a Windows instance that uses the bring your own license (BYOL) model, you must import the VM as an AMI instead. For more information, see [Importing a VM into Amazon EC2 as an Image](#) in the *Amazon EC2 User Guide for Linux Instances*.

If you're importing a VM from VMware vCenter, you can alternatively use the AWS Connector for vCenter to export a VM from VMware and import it to Amazon EC2. For more information, see [Migrating Your Virtual Machine to Amazon EC2 Using AWS Connector for vCenter](#) in the *AWS Management Portal for vCenter User Guide*.

### Tasks

- [Step 1: Install the Amazon EC2 CLI \(p. 738\)](#)
- [Step 2: Prepare Your VM \(p. 738\)](#)

- [Step 3: Export Your VM from Its Virtual Environment \(p. 739\)](#)
- [Step 4: Import Your VM to Amazon EC2 \(p. 740\)](#)
- [Step 5: Start the Instance \(p. 744\)](#)

## Step 1: Install the Amazon EC2 CLI

You need to install the Amazon EC2 CLI on the virtual machine that you will import. For more information, see [Setting Up the Amazon EC2 CLI \(p. 3\)](#).

## Step 2: Prepare Your VM

Use the following guidelines to configure your VM before exporting it from the virtualization environment.

- Disable any antivirus or intrusion detection software on your VM. These services can be re-enabled after the import process is complete.
- Uninstall the VMware Tools from your VMware VM.
- Disconnect any CD-ROM drives (virtual or physical).
- Set your network to DHCP instead of a static IP address. If you want to assign a static private IP address, be sure to use a non-reserved private IP address in your VPC subnet. Amazon Virtual Private Cloud (Amazon VPC) reserves the first four private IP addresses in a VPC subnet.
- Shut down your VM before exporting it.

### Windows

- Enable Remote Desktop (RDP) for remote access.
- Make sure that your host firewall (Windows firewall or similar), if configured, allows access to RDP. Otherwise, you will not be able to access your instance after the import is complete.
- Make sure that the administrator account and all other user accounts use secure passwords. All accounts must have passwords or the importation might fail.
- Make sure that your Windows VM has .NET Framework 3.5 or later installed, as required by [Amazon Windows EC2Config Service](#).
- You can run System Preparation (Sysprep) on your Windows Server 2008 or Windows Server 2012 VM images before or after they are imported. If you run Sysprep before importing your VM, the importation process adds an answer file (`unattend.xml`) to the VM that automatically accepts the End User License Agreement (EULA) and sets the locale to EN-US. If you choose to run Sysprep after importation, we recommend that you use the Amazon EC2 Config service to run Sysprep.

### To include your own answer file instead of the default (`unattend.xml`)

1. Copy the following sample file and set the `processorArchitecture` parameter to `x86` or `amd64`, depending on your OS architecture:

```
<?xml version='1.0' encoding='UTF-8'?>
<unattend xmlns:wcm='http://schemas.microsoft.com/WMIConfig/2002/State'
  xmlns='urn:schemas-microsoft-com:unattend'>
  <settings pass='oobeSystem'>
    <component versionScope='nonSxS' processorArchitecture='x86
or amd64' name='Microsoft-Windows-International-Core'
  publicKeyToken='31bf3856ad364e35' language='neutral'>
      <InputLocale>en-US</InputLocale>
      <SystemLocale>en-US</SystemLocale>
```

```
<UILanguage>en-US</UILanguage>
<UserLocale>en-US</UserLocale>
</component>
<component versionScope='nonSxS' processorArchitecture='x86 or amd64'
name='Microsoft-Windows-Shell-Setup' publicKeyToken='31bf3856ad364e35'
language='neutral'>
  <OOBE>
    <HideEULAPage>true</HideEULAPage>
    <SkipMachineOOBE>true</SkipMachineOOBE>
    <SkipUserOOBE>true</SkipUserOOBE>
  </OOBE>
</component>
</settings>
</unattend>
```

2. Save the file in the **C:\Windows\Panther** directory with the name `unattend.xml`.
3. Run Sysprep with the **/oobe** and **/generalize** options.

#### Note

These options strip all unique system information from the Microsoft Windows installation and prompt you to reset the administrator password.

4. Shut down the VM and export it from your virtualization environment.
- Disable Autologon on your Windows VM.
  - Make sure that there are no pending Microsoft updates, and that the computer is not set to install software when it reboots.
  - Apply the following hotfixes:
    - [You cannot change system time if RealTimeIsUniversal registry entry is enabled in Windows](#)
    - [High CPU usage during DST changeover in Windows Server 2008, Windows 7, or Windows Server 2008 R2](#)
  - Set the RealTimeIsUniversal registry key. For more information, see [Setting the Time](#) in the *Amazon EC2 User Guide for Windows Instances*.

## Linux

- Enable Secure Shell (SSH) for remote access.
- Make sure that your host firewall (such as Linux iptables) allows access to SSH. Otherwise, you will not be able to access your instance after the import is complete.
- Make sure that you have configured a non-root user to use public key-based SSH to access your instance after it is imported. The use of password-based SSH and root login over SSH are both possible, but not recommended. The use of public keys and a non-root user is recommended because it is more secure. VM Import will not configure an `ec2-user` account as part of the import process.
- Make sure that your Linux VM uses GRUB (GRUB legacy) or GRUB 2 as its bootloader.
- Make sure that your Linux VM uses one of the following for the root file system: EXT2, EXT3, EXT4, Btrfs, JFS, or XFS.

## Step 3: Export Your VM from Its Virtual Environment

After you have prepared your VM for export, you can export it from your virtualization environment. The [ec2-import-instance](#) (p. 560) command supports the following formats: Virtual Machine Disk (VMDK), Virtual Hard Disk (VHD), and raw. With some virtualization environments, you would export to Open Virtualization Format (OVF), which typically includes one or more VMDK or VHD files.

For more information, see the documentation for your virtualization environment. For example:

- **VMware** — [Export an OVF Template](#) on the VMware website
- **Citrix** — [Export VMs as OVF/OVA](#) on the Citrix website
- **Microsoft Hyper-V** — [Overview of exporting and importing a virtual machine](#) on the Microsoft website

## Step 4: Import Your VM to Amazon EC2

After exporting your VM from your virtualization environment, you can import it to Amazon EC2. The import process is the same regardless of the origin of the VM.

### Tasks

- [Import the VM](#) (p. 740)
- [Check the Status of the Import Task](#) (p. 741)
- [\(Optional\) Resume an Upload](#) (p. 743)
- [\(Optional\) Cancel an Upload](#) (p. 743)
- [Clean Up After an Upload](#) (p. 744)

## Import the VM

Use `ec2-import-instance` (p. 560) to create a new import instance task.

The syntax of the command is as follows:

```
ec2-import-instance disk_image_filename -f file_format -t instance_type -a architecture -b s3_bucket_name -o owner -w secret_key -p platform_name
```

To specify a subnet to use when you create the import task, add the `--subnet subnet_id` option.

Example: Windows

The following command creates an import instance task that imports a Windows Server 2008 SP2 (32-bit) VM.

```
ec2-import-instance ./WinSvr8-2-32-disk1.vmdk -f VMDK -t m1.small -a i386 -b myawsbucket -o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY -p Windows -O AKIAI44QH8DHBEXAMPLE -W je7MtGbClwBF/2Zp9Utk/h3yCo8nvbEXAMPLEKEY
```

This request uses the VMDK file, `WinSvr8-2-32-disk1.vmdk`, to create the import task. (Note that you can alternatively use VHD or RAW format.) If you do not specify a size for the requesting volume using the `-s` parameter, a volume size based on the disk image file is used. The output is similar to the following.

```
Requesting volume size: 25 GB
Disk image format: Stream-optimized VMDK
Converted volume size: 26843545600 bytes (25.00 GiB)
Requested EBS volume size: 26843545600 bytes (25.00 GiB)
TaskType          IMPORTINSTANCE TaskId import-i-fhbx6hua
ExpirationTime    2011-09-09T15:03:38+00:00      Status active
StatusMessage     Pending InstanceID           i-1234567890abcdef0
DISKIMAGE         DiskImageFormat VMDK      DiskImageSize 5070303744
                  VolumeSize      25          AvailabilityZone us-east-1c
```

```
ApproximateBytesConverted      0      Status  active StatusMessage
Pending
Creating new manifest at testImport/9cba4345-b73e-4469-8106-2756a9f5a077/
Win_2008_R1_EE_64.vmdkmanifest.xml
Uploading the manifest file
Uploading 5070303744 bytes across 484 parts
0% |-----| 100%
   |=====|
Done
```

We recommend that you install the latest version of the [Amazon Windows EC2Config Service](#) after you import your virtual machine into Amazon EC2.

Example: Linux

The following example creates an import instance task that imports a 64-bit Linux VM.

```
ec2-import-instance rhel6.4-64bit-disk.vhd -f vhd -t m3.xlarge -a
x86_64 -b myawsbucket -o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/
bPxRfiCYEXAMPLEKEY -p Linux
```

This request uses the VHD file, **rhel6.4-64bit-disk.vhd**, to create the import task. The output is similar to the following.

```
Requesting volume size: 8 GB
TaskType          IMPORTINSTANCE TaskId  import-i-ffnzq636
ExpirationTime    2013-12-12T22:55:18Z  Status  active  StatusMessage
Pending InstanceID  i-1234567890abcdef0
DISKIMAGE         DiskImageFormat VHD    DiskImageSize  861055488
VolumeSize        8      AvailabilityZone  us-east-1d
ApproximateBytesConverted      0      Status  active  StatusMessage
Pending
Creating new manifest at myawsbucket/b73bae14-7ec5-4122-8958-4234028e1d9f/
rhel6.4-64bit-disk.vhdmanifest.xml
Uploading the manifest file
Uploading 861055488 bytes across 83 parts
0% |-----| 100%
   |=====|
Done
```

Average speed was 11.054 MBps

The disk image for import-i-ffnzq636 has been uploaded to Amazon S3 where it is being converted into an EC2 instance. You may monitor the progress of this task using [ec2-describe-conversion-tasks](#) (p. 304). When the task is completed, you may use `ec2-delete-disk-image` to remove the image from S3.

## Check the Status of the Import Task

Use the [ec2-describe-conversion-tasks](#) (p. 304) command to return the status of an import task. The syntax is as follows:

```
ec2-describe-conversion-tasks task_id
```



Status values include the following:

- `active`—Your instance or volume is still importing.
- `cancelling`—Your instance or volume is still being canceled.
- `cancelled`—Your instance or volume is canceled.
- `completed`—Your instance or volume is ready to use.

The imported instance is in the stopped state. You can use the [ec2-start-instances](#) (p. 709) command to start it.

Example: Check the status

The following example enables you to see the status of your import instance task.

```
ec2-describe-conversion-tasks import-i-ffvko9js
```

Response 1

The following response shows that the `IMPORTINSTANCE` status is `active`, and 73747456 bytes out of 893968896 have been converted.

```
TaskType      IMPORTINSTANCE TaskId  import-i-ffvko9js
ExpirationTime 2011-06-07T13:30:50+00:00 Status active
StatusMessage  Pending InstanceID    i-1234567890abcdef0
DISKIMAGE      DiskImageFormat VMDK   DiskImageSize  893968896 VolumeSize
12             AvailabilityZone us-east-1      ApproximateBytesConverted
73747456      Status active StatusMessage  Pending
```

Response 2

The following response shows that the `IMPORTINSTANCE` status is `active`, at 7% progress, and the `DISKIMAGE` is completed.

```
TaskType      IMPORTINSTANCE TaskId  import-i-ffvko9js
ExpirationTime 2011-06-07T13:30:50+00:00 Status active
StatusMessage  Progress: 7% InstanceID    i-1234567890abcdef0
DISKIMAGE      DiskImageFormat VMDK   DiskImageSize  893968896 VolumeId
vol-1234567890abcdef0 VolumeSize 12      AvailabilityZone
us-east-1      ApproximateBytesConverted 893968896 Status completed
```

Response 3

The following response shows that the `IMPORTINSTANCE` status is `completed`.

```
TaskType      IMPORTINSTANCE TaskId  import-i-ffvko9js
ExpirationTime 2011-06-07T13:30:50+00:00 Status completed
InstanceID     i-1234567890abcdef0
DISKIMAGE      DiskImageFormat VMDK   DiskImageSize  893968896 VolumeId
vol-1234567890abcdef0 VolumeSize 12      AvailabilityZone
us-east-1      ApproximateBytesConverted 893968896 Status completed
```

**Note**

The `IMPORTINSTANCE` status is what you use to determine the final status. The `DISKIMAGE` status will be `completed` for a period of time before the `IMPORTINSTANCE` status is `completed`.

You can now use commands such as `ec2-stop-instance`, `ec2-start-instance`, `ec2-reboot-instance`, and `ec2-terminate-instance` to manage your instance.

## (Optional) Resume an Upload

Connectivity problems can interrupt an upload. When you resume an upload, Amazon EC2 automatically starts the upload from where it stopped. To resume an upload, use the [`ec2-resume-import`](#) (p. 684) command. This command uses the HTTP HEAD action to determine where to resume.

```
ec2-resume-import disk_image -t task_id -o owner -w secret_key
```

Example: Resume an upload

The following example resumes an import instance task.

```
ec2-resume-import Win_2008_R1_EE_64.vmdk -t import-i-ffni8aei -o  
AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY
```

The following shows the output when the import instance task is complete:

```
Disk image size: 5070303744 bytes (4.72 GiB)  
Disk image format: Stream-optimized VMDK  
Converted volume size: 26843545600 bytes (25.00 GiB)  
Requested EBS volume size: 26843545600 bytes (25.00 GiB)  
Uploading 5070303744 bytes across 484 parts  
0% |-----| 100%  
  |=====|  
Done  
Average speed was 10.316 MBps  
The disk image for import-i-ffni8aei has been uploaded to Amazon S3  
where it is being converted into an EC2 instance. You may monitor the  
progress of this task by running ec2-describe-conversion-tasks. When  
the task is completed, you may use ec2-delete-disk-image to remove the  
image from S3.
```

## (Optional) Cancel an Upload

Use the [`ec2-cancel-conversion-task`](#) (p. 87) command to cancel an active import task. The task can be the upload of an instance or a volume. The command removes all artifacts of the import, including uploaded volumes or instances.

If the import is complete or still transferring the final disk image, the command fails and returns an exception similar to the following:

```
Client.CancelConversionTask Error: Failed to cancel conversion task import-i-  
fh95npoc
```

Example: Cancel an upload

The following example cancels the upload associated with the task ID `import-i-fh95npoc`.

```
ec2-cancel-conversion-task import-i-fh95npoc
```

The output for a successful cancellation is similar to the following:

```
CONVERSION-TASK import-i-fh95npoc
```

You can use the [ec2-describe-conversion-tasks](#) (p. 304) command to check the status of the cancellation as in the following example:

```
ec2-describe-conversion-tasks import-i-fh95npoc
TaskType          IMPORTINSTANCE TaskId  import-i-fh95npoc
ExpirationTime    2010-12-20T18:36:39+00:00      Status  cancelled
InstanceID        i-1234567890abcdef0
DISKIMAGE         DiskImageFormat VMDK   DiskImageSize  2671981568
                  VolumeSize    40     AvailabilityZone  us-east-1c
ApproximateBytesConverted  0     Status  cancelled
```

In this example, the status is `cancelled`. If the upload were still in process, the status would be `cancelling`.

## Clean Up After an Upload

You can use the [ec2-delete-disk-image](#) (p. 214) command to remove the image file after it is uploaded. If you do not delete it, you will be charged for its storage in Amazon S3.

Example: Delete the image file from Amazon S3

The following example deletes the disk image associated with the task ID, `import-i-fh95npoc`.

```
ec2-delete-disk-image -t import-i-fh95npoc
```

The output for a successful cancellation is similar to the following:

```
DELETE-TASK import-i-fh95npoc
```

## Step 5: Start the Instance

After the VM import process uploads the VM to Amazon S3, it automatically launches it as a stopped instance. Before you can use the instance, you must start it.

### To start the instance

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. If necessary, change the region. From the navigation bar, select the region where your instance is running.
3. In the navigation pane, choose **Instances**.
4. In the content pane, right-click the instance, select **Instance State**, and then choose **Start**.

To import additional disks and attach them to your instance as Amazon EBS volumes, see [Importing Disks to Amazon EBS](#) (p. 747).

## Exporting an Instance from Amazon EC2

If you have previously imported a virtual machine into Amazon EC2, you can use the Amazon EC2 command line tools to export that EC2 instance to Citrix Xen, Microsoft Hyper-V, or VMware vSphere.

Exporting an instance that you previously imported is useful when you want to deploy a copy of your EC2 instance in your on-site virtualization environment.

If you're using VMware vSphere, you can also use the AWS Connector for vCenter to export a VM from Amazon EC2. For more information, see [Exporting a Migrated Amazon EC2 Instance](#) in the *AWS Management Portal for vCenter User Guide*.

#### Contents

- [Prerequisites](#) (p. 745)
- [Limitations](#) (p. 746)
- [Export an Instance](#) (p. 746)
- [Monitor Instance Export](#) (p. 747)
- [Cancel or Stop the Export of an Instance](#) (p. 747)

## Prerequisites

To export a VM from Amazon EC2, install the Amazon EC2 CLI on the instance. For more information, see [Setting Up the Amazon EC2 CLI](#) (p. 3).

You can create an Amazon S3 bucket for storing the exported instances and grant VM Import/Export permission to access the bucket. If you already have a bucket and want to use it, you can use it instead of creating a bucket.

### (Optional) To create an S3 bucket

1. Open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Choose **Create Bucket**.
3. In the **Create a Bucket** dialog box, do the following:
  - a. For **Bucket Name**, type a name for your bucket. This name must be unique across all existing bucket names in Amazon S3. In some regions, there might be additional restrictions on bucket names. For more information, see [Bucket Restrictions and Limitations](#) in the *Amazon Simple Storage Service Developer Guide*.
  - b. For **Region**, select a region.
  - c. Choose **Create**.

The `vm-import-export@amazon.com` account must have **Upload/Delete** and **View Permissions** access to the S3 bucket.

### To grant VM Import/Export permissions to your bucket

1. Open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Select the bucket, and then choose **Properties**.
3. Under **Permissions**, choose **Add more permissions**.
4. For **Grantee**, type `vm-import-export@amazon.com`.
5. Select **Upload/Delete** and **View Permissions**.
6. Choose **Save**.

Note that instead of specifying the `vm-import-export@amazon.com` account, you can use the following region-specific canonical IDs:

- **China (Beijing)**: 834bafd86b15b6ca71074df0fd1f93d234b9d5e848a2cb31f880c149003ce36f

- **AWS GovCloud (US):** af913ca13efe7a94b88392711f6cfc8aa07c9d1454d4f190a624b126733a5602
- **All other regions:** c4d8eabf8db69dbe46bfe0e517100c554f01200b104d59cd408e777ba442a322

For more information, see [Editing Bucket Permissions](#) in the *Amazon Simple Storage Service Console User Guide*.

## Limitations

Exporting instances and volumes is subject to the following limitations:

- You can't export an instance or AMI from Amazon EC2 unless you previously imported it into Amazon EC2 from another virtualization environment.
- You must export your instances and volumes to one of the following image formats that your virtualization environment supports:
  - Open Virtual Appliance (OVA), which is compatible with VMware vSphere versions 4 and 5.
  - Virtual Hard Disk (VHD), which is compatible with Citrix Xen and Microsoft Hyper-V virtualization products.
  - Stream-optimized ESX Virtual Machine Disk (VMDK), which is compatible with VMware ESX and VMware vSphere versions 4 and 5.
- You can't export Amazon EBS data volumes.
- You can't export an instance or AMI that has more than one virtual disk.
- You can't export an instance or AMI that uses a fixed Virtual Hard Disk (VHD).
- You can't export an instance or AMI that has more than one network interface.
- You can't export an instance or AMI from Amazon EC2 if you've shared it from another AWS account.
- You can't have more than five export tasks per region in progress at the same time.

## Export an Instance

When you use the `ec2-create-instance-export-task` (p. 129) command, you must provide the information required to properly export the instance to the selected virtualization format. The exported file is saved in an S3 bucket that you specify.

### Note

When you export an instance, you are charged the standard Amazon S3 rates for the bucket where the exported VM is stored. In addition, there might be a small charge for the temporary use of an Amazon EBS snapshot. For more information about Amazon S3 pricing, see [Amazon Simple Storage Service Pricing](#).

Use the following `ec2-create-instance-export-task` (p. 129) command:

```
ec2-create-instance-export-task instance_id -e target_environment -  
f disk_image_format -c container_format -b s3_bucket
```

*instance\_id*

The ID of the instance.

*target\_environment*

The target environment (VMware | Citrix | Microsoft).

*disk\_image\_format*

The disk image format; `vmdk` for VMware or `vhd` for Microsoft Hyper-V and Citrix Xen.

*container\_format*

The container format; `ova` for VMware.

*s3\_bucket*

The name of the Amazon S3 bucket for the exported instance.

## Monitor Instance Export

To monitor the export of your instance, use the following [ec2-describe-export-tasks](#) (p. 316) command:

```
ec2-describe-export-tasks task_id
```

## Cancel or Stop the Export of an Instance

You can use the Amazon EC2 CLI to cancel or stop the export of an instance up to the point of completion. The [ec2-cancel-export-task](#) (p. 91) command removes all artifacts of the export, including any partially created Amazon S3 objects. If the export task is complete or is in the process of transferring the final disk image, the command fails and returns an error.

To cancel or stop the export of an instance

At the command prompt, type the following command, where *task\_id* is the ID of the export task:

```
ec2-cancel-export-task task_id
```

## Importing Disks to Amazon EBS

With [ec2-import-instance](#) (p. 560), you can import a VM with a single disk. After the import is complete, you can import any additional disks using [ec2-import-volume](#) (p. 571), and then attach the resulting EBS volumes to your instance using [ec2-attach-volume](#) (p. 66).

You can import RAW, Virtual Hard Disk (VHD), and ESX Virtual Machine Disk (VMDK) disk formats.

If you prefer to use the AWS CLI, you must import the disk as an EBS snapshot instead. For more information, see [Importing Your Disk Images into Amazon EBS](#) in the *Amazon EC2 User Guide for Linux Instances*.

### To import a volume

1. Use the [ec2-import-volume](#) (p. 571) command to create a task that allows you to upload your volume into Amazon EBS. The syntax of the command is as follows:

```
ec2-import-volume disk_image -f file_format -s volume_size -  
z availability_zone -b s3_bucket_name -o Amazon S3 bucket owner -w Amazon  
S3 bucket secret_access_key --region region_name -O your_access_key -  
W your_secret_key
```

The following example creates an import volume task for importing a volume to the us-east-1 region.

```
ec2-import-volume Win_2008_R1_EE_64.vmdk -f vmdk -s 25 -z us-east-1d  
-b myawsbucket -o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/  
bPxRfiCYEXAMPLEKEY --region us-east-1 -O AKIAI44QH8DHBEXAMPLE -W  
je7MtGbClwBF/2Zp9Utk/h3yCo8nvbEXAMPLEKEY
```

The following is an example response.

```
Requesting volume size: 25 GB
Disk image format: Stream-optimized VMDK
Converted volume size: 26843545600 bytes (25.00 GiB)
Requested EBS volume size: 26843545600 bytes (25.00 GiB)
TaskType          IMPORTVOLUME    TaskId  import-vol-ffut5xv4
  ExpirationTime  2011-09-09T15:22:30+00:00      Status  active
  StatusMessage   Pending
DISKIMAGE         DiskImageFormat VMDK    DiskImageSize  5070303744
  VolumeSize      25      AvailabilityZone  us-east-1d
  ApproximateBytesConverted  0
Creating new manifest at myawsbucket/0fd8fcf5-04d8-44ae-981f-3c9f56d04520/
Win_2008_R1_EE_64.vmdkmanifest.xml
Uploading the manifest file
Uploading 5070303744 bytes across 484 parts
0% |-----| 100%
   |=====|
Done
```

Amazon EC2 returns a task ID that you use in the next step. In this example, the ID is `import-vol-ffut5xv4`.

2. Use the [ec2-describe-conversion-tasks](#) (p. 304) command to confirm that your volume imported successfully.

```
ec2-describe-conversion-tasks import-vol-ffut5xv4
TaskType          IMPORTVOLUME    TaskId  import-vol-ffut5xv4
  ExpirationTime  2011-09-09T15:22:30+00:00      Status  completed
DISKIMAGE         DiskImageFormat VMDK    DiskImageSize  5070303744
  VolumeId        vol-1234567890abcdef0    VolumeSize  25
  AvailabilityZone  us-east-1d      ApproximateBytesConverted  5070303744
```

The status in this example is `completed`, which means the import succeeded.

3. Use the [ec2-attach-volume](#) (p. 66) command to attach the Amazon EBS volume to one of your existing EC2 instances. The following example attaches the specified volume to the specified instance on the device `/dev/sde`. (Note that for Windows, you would use `xvde`.)

```
ec2-attach-volume vol-1234567890abcdef0 -i i-1234567890abcdef0 -d /dev/sde
ATTACHMENT vol-1234567890abcdef0 i-1234567890abcdef0 attaching
2010-03-23T15:43:46+00:00
```